

REPORT ON THE

**ARMED SERVICES  
TECHNICAL  
INFORMATION AGENCY**

**ARDC-USAF**



Conducted by

**Department of Defense  
Management Survey Group**

**JUNE 30, 1957**

**20100915128**



## DEFENSE TECHNICAL INFORMATION CENTER

*Information for the Defense Community*

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**REPORT ON  
THE ARMED SERVICES  
TECHNICAL INFORMATION AGENCY**

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**AIR RESEARCH AND DEVELOPMENT COMMAND  
UNITED STATES AIR FORCE**

**June 30, 1957**



OFFICE OF THE SECRETARY OF DEFENSE  
WASHINGTON 25, D. C.

August 2, 1957

MEMORANDUM FOR THE DEPUTY ASSISTANT SECRETARY OF  
DEFENSE (R&E)

SUBJECT: Survey of the Armed Services Technical Information  
Agency

A management survey of the Armed Services Technical Information Agency has been completed by the Ad Hoc Management Survey Group established by your office. The Report and Recommendations of the survey group are attached.

During the period in which the survey was being conducted, the group made on-the-spot inspections of ASTIA operations at Dayton, Ohio and at the Library of Congress in Washington, D. C. Discussions were also had with personnel responsible for ASTIA matters at each command level of the Air Force, including the Air Research and Development Command at Baltimore, Maryland, and Headquarters, U. S. Air Force in Washington, as well as with appropriate personnel in Army, Navy and the Office of the Secretary of Defense.

All concerned agreed that a number of major problems were plaguing the ASTIA operation and needed immediate attention and resolution. The survey group, in the attached report, has addressed itself to these problems and recommends a course of action which, if adopted, should make the ASTIA operation more effective and for the first time place the agency in a position to render the much needed and valuable service to the Defense Research and Development Community which was originally conceived by its founders.

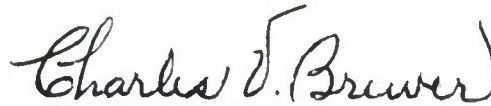
The survey group has discussed its findings and recommendations with all of the individuals in the Department of Defense with whom discussions were held during the fact-finding phase, as well as with many others who are in management positions in Defense activities that exercise some control over ASTIA resources and operations. Except for a few individual reservations on specific points, all agree that the recommendations and solutions provided in the group's report are appropriate



and desirable. The survey group is also pleased to report that several actions have already been initiated by the Department of the Air Force which, when completed, will implement some of the recommendations contained in this report.

As the group leader, I wish to take this opportunity to personally express my appreciation and thanks to each member of the survey group and to each individual whom the group called on during its survey for their fine cooperation and assistance.

Unless you require further assistance, the Ad Hoc Management Survey Group established to conduct the study of, and make a report on the operations of the Armed Services Technical Information Agency will be dissolved upon the acceptance of this report by your office.

A handwritten signature in cursive script that reads "Charles V. Brewer". The signature is written in dark ink and is positioned above the printed name.

Charles V. Brewer  
Assistant for  
Administrative Management

REPORT ON  
ARMED SERVICES TECHNICAL INFORMATION AGENCY

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
General	1
Purpose and Scope	2
Method	2
Recommendations	3
Acknowledgment	3
SECTION I      BACKGROUND	4
The Beginning	4
Growth of ASTIA	5
Present Situation	8
McCormack Committee	10
Harris Committee	12
Robertson Report	13
SECTION II     RELATIONSHIPS	15
A. <u>Relationships with Policy Council</u>	15
Evolution of the Council	15
Operation of the Council	17
Proposed Changes in the Council	18
B. <u>Relationships with ARDC</u>	20
Command Channels	20
Management Services	21
C. <u>Operational Relationships with Services</u>	22
Operational Liaison	22
Navy-ASTIA Liaison Committee	24
ASTIA Advisory Council	25
Advantages	25
SECTION III    CONSOLIDATION	29
Split Operation	29
Location	30
Physical Layout	35

		<u>Page</u>
SECTION IV	ORGANIZATION AND FUNCTIONS	38
	A. <u>Present Organization</u>	38
	ASTIA at Dayton	38
	ASTIA Reference Center (Washington)	40
	B. <u>Proposed Organization</u>	42
	Deputy Director	42
	Administrative Services Division	44
	Management Division	45
	Document Processing Division	46
	Customer Service Division	52
	Reproduction Division	59
	C. <u>Bibliography Functions</u>	63
	Report Bibliographies	63
	Comprehensive Bibliographies	63
SECTION V	SYSTEMS AND PROCEDURES	66
	Pre-Publication Cataloging	67
	Title Announcement Bulletin	74
	Use Earlier in R&D Cycle	76
	Automation	78
SECTION VI	MANNING	81
	Background	81
	Present	82
	Proposed	83
	Savings	83
SECTION VII	FINANCING	36
	Background	86
	Emergency Funds	89
	Increased Workload	90
	Curtailment of Services	91
	Hidden Costs	92
	Proposed Funding	94
SECTION VIII	SECURITY	98
	Limitations	98
	Via System	103
SECTION IX	SUMMARY OF RECOMMENDATIONS	108

	<u>FIGURES</u>	<u>Page</u>
FIGURE	1 ASTIA Relationships	26
	2 Suggested Floor Scheme	36
	3 Present Organization of ASTIA at Dayton	39
	4 Present Organization of ASTIA Reference Center - Library of Congress	41
	5 Proposed Organization of ASTIA	43
	6 Analysis of Accessions	46
	7 Analysis of Requests for Reports	53a
	8 Division of ASTIA Functions	61
	9 Analysis of Time Required to Fill Requests	68
	10 Analysis of Time Required to Process Docu- ments	69
	11 Summary of ASTIA Manning	81
	12 Summary of Financial Requirements	88
	13 Sampling of Time Required by "Via" System	106

### APPENDICES

APPENDIX A	DOD Directive No. 5160.4, February 21, 1955
B	AFR 205-43 (AR 380-60; OPNAVINST 5510.17A)
C	Suggested Revision to DOD Directive No. 5160.4
D	Forecast of ASTIA Activity
E	Proposed DOD Directive re: Cataloging and Abstracting of Reports by Originators
F	Statistics on ASTIA Personnel as of March 21, 1957
G	Price List and PL 776 - 81st Congress, Office of Technical Services, Department of Commerce



## INTRODUCTION

### General

This study was made at the request of the Office of the Assistant Secretary of Defense (Research and Development) as a result of a recommendation made by the ASTIA Policy Council. It was proposed at the Fourteenth Meeting of the ASTIA Policy Council, January 11, 1957, that an Ad Hoc Committee, or survey group, be formed to undertake a management survey concerning the efficiency of ASTIA's internal operations. In February 1957, a Department of Defense management survey group was formed with Mr. Charles V. Brewer, Office of the Secretary of Defense, as group leader, and the following representatives of the three military departments: Mr. John C. Davison, Air Force; Mr. Robert A. Garlock, Navy; and Mr. Claud C. Ham, Army. Mr. John H. Arthur, Office of the Assistant Secretary of Defense (Research and Development), was designated as an advisory member of the group.

The survey group was requested to prepare a report for the Office of the Assistant Secretary of Defense (Research and Development), now (Research and Engineering). The report was to be completed at the earliest practicable date and made available to each of the military departments.

## Purpose and Scope

The purpose of the management survey was to provide information to the Office of the Assistant Secretary of Defense (Research and Development), now (Research and Engineering), regarding the operation of ASTIA and to recommend actions necessary to improve the efficiency and effectiveness of ASTIA's operations.

The survey covered (a) organization, (b) location, (c) ASTIA's relationships with its contributors, the Air Force command structure, the three military departments and the ASTIA Policy Council, (d) utilization of and requirement for resources, and (e) systems and procedures. External considerations of user requirements and user satisfaction were beyond the scope of this survey.

## Method

The survey group held extensive fact-finding discussions in Dayton, Ohio, with the top management and supervisory personnel of ASTIA. Examinations and observations were made of actual work processes. Statements of duties of military and civilian personnel, staff studies, workload data, flow charts, functional statements, administrative issuances, publications, SOP's and reports were studied.

In a series of subsequent on-the-spot visits, discussions were held with representatives of the Air Research and Development Command of the Air Force, various offices in the Office of the Secretary

of Defense, and with representatives of the Army, Navy, Air Force, Department of Commerce and Library of Congress.

And also, before writing this report, the survey group discussed and explained its findings and tentative recommendations with these same officials.

### Recommendations

A summary of all recommendations is included as Section IX of this report (pages 108 to 111) for convenient reference as well as being stated in each section, as appropriate.

### Acknowledgement

The survey group desires to take this opportunity to express its appreciation to all individuals in the Department of Defense, the Library of Congress and the Department of Commerce for the excellent cooperation and assistance extended to it during the course of this survey. Without the fine efforts and cooperation of those personnel, the survey group would not have been able to achieve its mission successfully.

SECTION I  
BACKGROUND

The Beginning

The Armed Services Technical Information Agency was initially established by a Secretary of Defense Directive and accompanying memorandum dated May 14, 1951. "The decision to launch this undertaking was based upon recognition of the fact that the end product of all Department of Defense sponsored research and development -- i. e. , the recorded conclusions -- costing vast sums of money and irreplaceable scientific effort, must be assembled, organized, preserved, and made available for future reference by those concerned with exploring and guarding the scientific frontiers of the Nation."

The ASTIA mission, as originally stated, was to operate "as a joint project under the policy direction of the Research and Development Board and the management control of the Department of the Air Force, with the responsibility of providing an integrated program of scientific and technical report services for the Department of Defense and its contractors".

Although elements of its mission were to be found in hundreds of independently operated libraries and technical information organizations sponsored directly or indirectly by the three military departments, ASTIA initially undertook the task of unifying the efforts of the principal



ones, i. e., the Office of Naval Research sponsored Navy Research Section (NRS) at the Library of Congress and the Air Force operated Central Air Documents Office (CADO) at Dayton, Ohio. Guided by an unprecedented, but fully approved, Plan of Operations, the Agency attempted to meet the overwhelming demands placed upon it during a period when the military research and development program was barely in low gear. Faced with stringent military security requirements and complicated administrative problems affecting the availability of resources, the Agency accomplished the functional integration of NRS and CADO without making a physical consolidation of the two organizational elements. It accepted the combined workload of both organizations without being able to realistically predict the ultimate requirement.

#### Growth of ASTIA

ASTIA began filling the requirements for a Department of Defense technical information center. ASTIA's services were tailored to fit the individual need, which ranged from supplying a document full size or in micro-card form, or a catalog card to providing an announcement service or the searching for and acquisition of a missing document or the searching and furnishing a report bibliography.

From FY 1953 through FY 1956 the demand for services increased 162%. Requests for services have been increasing over 30% per year for the past several years. Stored documents occupy more than 10,000

square feet of floor space and represent a collection of more than two million document copies. About 34,000 reports are cataloged and added to this collection each year. The number of titles selected for announcement in FY 1956 was 20% greater than for FY 1953. This has required more editing, printing and collating. The micro-card program which was just getting started in FY 1953 showed an increase of 830% in titles micro-carded and a 3000% increase in total micro-cards produced. The reproduction of catalog cards increased approximately 200%, or at an annual rate of from 8,000,000 to 23,000,000. The catalog distribution increased from 3,500,000 to over 22,000,000. Also, the number of pieces of outgoing mail nearly doubled. Approximately 600,000 pieces of mail were processed during FY 1956, of which about one-third was registered. It appears evident that ASTIA has not yet reached the ultimate plateau at which the amount of business will level off and stabilize. Backlogs continue to exist, partially because of increased requests inspired by improved service.

During FY 1956 two new programs involving an increase in workload were assigned to ASTIA. ASTIA was directed by ARDC to publish and distribute its Technical Program Planning Documents. During the year the list of TPPD recipients grew from an initial 100 to 1000. At the direction of the ASTIA Policy Council, ASTIA undertook a program of preparing, publishing and distributing a NATO Title Announcement Bulletin (TAB). Also, ASTIA is furnishing unclassified documents to NATO nations on a request basis.

ASTIA has had for some years two field offices -- one in Los Angeles and one in New York City. A third one is presently being established in the San Francisco area. Several more are considered necessary for efficient operation.

Since ASTIA's first budget as a separate entity for FY 1953, there has been a general understanding in the R&D budget community that \$2,000,000 of Department of Defense research and development money was being allocated annually to the Air Force as research and development money for the operation of ASTIA. Overruns of this amount have had to be paid by reprogramming funds from other Air Force research and development programs.

Early in FY 1957, the Air Force determined that its research and development funds were so limited in light of priority programs that it would be necessary to request \$780,000 additional funds (i. e., in addition to the \$2,000,000) from OSD to assist in financing the ASTIA operation. The request was approved by the ASTIA Policy Council and the former Assistant Secretary of Defense (R&D). It was suggested that the amount of \$780,000 should be provided from the R&D Emergency Funds. However, final consideration on this matter was deferred until this survey could be completed. Additional background discussion on the budget is contained in Section VII - 'Financing' of this report. Also, a forecast of ASTIA's growth in relation to the overall DOD R&D program is outlined in Appendix D.



### Present Situation

ASTIA is faced with the situation of operating with funds less than that programmed and budgeted for in FY 1957 and FY 1958. Funds for all overtime have been discontinued. ASTIA was using overtime at the rate of 38 man years at the time of its discontinuance.

In September 1956, ASTIA requested 88 additional manning spaces. Neither the ARDC nor the Headquarters USAF were able to satisfy this request from their available resources. In addition to this and to the elimination of overtime, ARDC found it necessary to withdraw a temporary increase of 31 spaces previously authorized ASTIA to meet its expanding workload. This further reduced ASTIA's manning capability from 303 to 272. ASTIA reluctantly found it necessary to curtail its service to users, and discontinued the distribution of catalog cards effective February 15, 1957.

On August 23, 1956, the Commander of ASTIA was notified by The Librarian of Congress that he desired to cancel the ASTIA contract when it expires on June 30, 1957, because he had other urgent requirements for the 22,000 square feet of space occupied by the ASTIA Reference Center. The ASTIA Reference Center in the Library of Congress performs ASTIA's functions of cataloging, abstracting, copy preparation of catalog cards, report bibliography service and local loan and reference service. The contract for FY 1957 is in the amount of \$811,567. The Library of Congress employs 160 personnel to perform the ASTIA workload and functions.



In summation, there are listed below a number of pressing and unresolved problems presently confronting the operation of ASTIA.

- a. Consolidate in one location -- a suitable facility has not been obtained.
- b. Money and manning spaces available to perform ASTIA services are inadequate under current methods of operation.
- c. Need to curtail service to users in the face of increased demand for ASTIA's services by the military departments and Department of Defense R&D contractors.
- d. Backlogs of work and time delays.
- e. Termination of ASTIA contract with Library of Congress.

Over the years a number of important committees have investigated the ASTIA activities. Each investigation in turn was critical of three things which interfered with ASTIA's effectiveness:

- a. Growing workloads
- b. Split organization
- c. Lack of commensurate increases in manpower, finance, and facilities.

Some improvement in ASTIA's effectiveness and smoothness of operations followed each committee report. However, recommendations for the correction of the above three basic problems went continuously unimplemented. A brief resume of the findings of the three more

important committees is presented below as a background to give perspective to this study and report.

#### McCormack Committee

On December 10, 1953, the Assistant Secretary of Defense (Research and Development) requested Major General James McCormack, Jr., USAF, to chair a committee whose task was to review the operations of ASTIA and recommend improvements in operation, management and policy. In addition to the chairman who represented the Air Force, the committee was composed of representatives from the Office of the Assistant Secretary of Defense (R&D), Army, Navy, Department of Commerce and National Science Foundation.

The McCormack Committee found the ASTIA operation to be considerably less efficient than it might have been. There were a number of reasons for this: Newness of the organization; procedural differences among the security practices of the three Services; operation split in two geographical locations; and differences in organizational concept and operating procedures as between the Air Force and the Library of Congress.

The Committee, in its report of March 1, 1954, as amended on July 19, 1954, recommended that:

- a. The ASTIA organization should be brought together physically without delay in the Washington area.

- b. The necessary mechanism should be established without delay to ensure positive and continuous policy direction under the ASD (R&D).
- c. The entire operation should, at an appropriate time, be brought together under a common organizational framework.
- d. The OSD should establish for the managing agent:
  - (1) an overceiling funding program for ASTIA, and
  - (2) an overceiling personnel authorization for ASTIA.
- e. A revised ASTIA directive and appropriate revision to joint security regulations should be formulated by a committee representing the Security and the Research and Development organizations of the Secretary of Defense and of the Army, Navy and Air Force.

The above recommendations of the McCormack Committee, with some slight modification as pertained to security implications, were approved by the Research and Development Council in its meeting on August 9, 1954. At that meeting an ASTIA Policy Council was formed with representatives designated from the Office of the Assistant Secretary of Defense (R&D) and each Service. The ASTIA Policy Council was assigned the task of drafting a revised directive for ASTIA incorporating the McCormack Committee recommendations.

Subsequently, revised directives were issued which stand today

as the basic directives governing the mission and functions of ASTIA, the assignment of responsibilities for ASTIA, the broad framework for ASTIA operation and the security requirements. These directives are:

- a. Department of Defense Directive 5160.4, subject: "Assignment of Responsibilities to the Secretary of the Air Force for the provision of Technical Information and Related Services required by Department of Defense activities", dated February 21, 1955. (See Appendix A)
- b. AFR 205-43 (AR 380-60; OPNAVINST 5510.17A), "Armed Services Technical Information Agency", dated October 10, 1955. (See Appendix B)

#### Harris Committee

A broad scale survey was made by the Harris Committee in 1955. This was a tri-service ad hoc committee appointed by the Commander of ARDC. The committee was under the chairmanship of Major General S. R. Harris, USAF, and examined all phases of ASTIA management, internal and external operating problems and relationships, regional activities, research requirements, and the overall security problems of the operation.

Recognizing the improbability of obtaining suitable quarters for consolidation of ASTIA under one roof in the Washington, D.C. area, the committee concluded that at least a portion of the proposed consolidation could be accomplished by moving the ASTIA Headquarters staff to



the Agency's principal operating location at the Document Service Center, Knott Building, Dayton, Ohio. This was implemented a few months later.

The committee also recommended:

- a. Realignment of the ASTIA organization designed to eliminate overlapping and duplication.
- b. Issuance of new and more definitive Department of Defense directive.
- c. The continuance of and expanded utilization of regional offices.
- d. Continuous attention toward improving physical and operating security measures.
- e. Further analyses and study of certain functional areas which might bring about a more effective service.

On April 1, 1955, following acceptance of the committee's report by the Assistant Secretary of Defense (R&D), the Commander of ARDC was delegated full authority to proceed with its implementation. Recommendation a. was not implemented; action was taken on the other recommendations.

#### Robertson Report

During May 1956, ASTIA was visited by staff members of an Ad Hoc Group engaged in a study of Department of Defense methods and

procedures of research, development, procurement and production. Deputy Secretary of Defense Reuben B. Robertson, Jr. appointed the Group for the purpose of studying and making recommendations to the Secretary of Defense on methods and procedures which might be devised in order to shorten the time presently required to take a weapon from concept to inventory. The Group made some recommendations which are of interest in this background discussion. The following is quoted from the "Manned Aircraft Weapon Systems - A Report Prepared by the Ad Hoc Study Group, OSD, July 1956" (also known as the "Robertson Report").

"In order to strengthen the ASTIA organization and make more effective its communication with industry, it is recommended that:

- (a) ASD (R&D) should develop a plan in consultation with the Air Force and Navy for establishing ASTIA as a true joint service agency.
- (b) More adequate funds be provided.
- (c) Improved methods of abstracting, storage, and transmission of information be developed. Extensive research in data processing and rapid distribution is needed."

To date no implementing action has been taken relative to these recommendations.

SECTION II  
RELATIONSHIPS

A. RELATIONSHIPS WITH POLICY COUNCIL

Evolution of the ASTIA Policy Council

It was primarily the Special Committee on Technical Information, under the old Research and Development Board structure, that motivated the establishment within the Department of Defense of an integrated scientific and technical report service. The study and recommendations of this Committee, plus the work of the Defense Management Committee under the chairmanship of General Joseph T. McNarney, resulted in the Marshall memorandum and DOD Directive of May 14, 1951 which established ASTIA.

These directives provided that ASTIA should be under the policy direction of the former Research and Development Board. Immediately it was found necessary to define what was meant by "policy direction". A sub-committee of the Special Committee on Technical Information was assigned the task of interpreting the term and making appropriate recommendations. As a result of the sub-committee's work, certain specific clarifications of "policy direction" were agreed upon and adopted. In brief, they were as follows:

- a. The Chairman, Research and Development Board would  
continue to maintain a committee on Technical Information

within the RDB, responsible for advising on the policy direction of ASTIA.

- b. The Director of ASTIA would be an associate member of the RDB Committee on Technical Information.
- c. "Policy direction" was to "include policies affecting the scope, extent of coverage, acquisition of technical reports, forms of publications, distribution of publications, public relations, relations with other agencies, professional standards of efficiency and the extent of research and development conducted".
- d. The functions of the Advisory Council would be limited to giving assistance to the Director in the operations of ASTIA and serving as liaison between ASTIA and the military departments.

It should be noted that in the early period of ASTIA (1951-1953), there existed two advisory bodies: one at the OSD level (Committee on Technical Information) and one at the ASTIA level (Advisory Council).

When the Research and Development Board was abolished under Reorganization Plan No. 6 and the Office of the Assistant Secretary of Defense (R&D) was created, the Special Committee on Technical Information was discontinued. The monitorship of ASTIA was assumed by the R&D Policy Council of the newly-established Office of the Assistant Secretary of Defense (R&D).



At the time of implementation of the McCormack Committee report (1954), the ASTIA Advisory Council went out of business. The individual representatives who were members both of the McCormack Committee and the old ASTIA Advisory Council then became the members of the new ASTIA Policy Council at the OSD level. The May 14, 1951 directive was revised (DOD Directive 5160.4, February 21, 1955). This revised directive which is presently in effect makes no mention of the ASTIA Policy Council or any formal advisory body at any level.

#### Operation of the Council

The ASTIA Policy Council is chaired by a representative of the Office of the Assistant Secretary of Defense (R&E) and has an R&D and a Security member from each of the three military departments. It generally meets once a month. Ostensibly its purpose is to advise the Assistant Secretary of Defense (R&E) on policy matters affecting ASTIA and affecting the interests of the three military departments individually as well as the Department of Defense as a whole. Illustrative of matters considered are those of budget, manpower, security, location, and objectives and procedures of contribution to and utilization of the collection.

The need for continuing the ASTIA Policy Council at the OSD level appears questionable. Recognizing the principle that OSD is responsible for providing broad policy direction over departmental activities such as ASTIA, the survey group fails to find a valid requirement for a policy council at the OSD level to govern ASTIA activities any more

than could be justified for other specific research and development projects. Under the original concept utilized in the DOD Directive 5160.4, the Secretary of the Air Force is charged with the responsibility for managing and operating ASTIA. However, one of the tools of management was denied to him. It is he, or his designated representative, assigned responsibility for the management of ASTIA, who should have the immediate access to advice, counsel and collaboration of the other two departments to assist him in discharging his ASTIA responsibility to the satisfaction of all.

The responsibility at the headquarters level in the Air Force has been assigned to the Director of Research and Development in the Air Staff. This official is also the presently-designated Air Force member of the ASTIA Policy Council.

#### Proposed Changes in the Council

The survey group proposes that an ASTIA Advisory Council be established at the service level in lieu of OSD level. Under this proposal the Secretaries of each of the three military departments as well as the Assistant Secretary of Defense (R&E) would be required to designate an R&D member to the ASTIA Advisory Council. The Air Force member would be the chairman.

Inasmuch as ASTIA is an R&D function and program, the survey group does not believe that security representatives should be designated to the ASTIA Advisory Council. The line of reasoning which would warrant security representative membership to the Council would also warrant representation from the budget, organization and manpower and other functional areas. Security representatives as well as other functional representatives should be invited to ASTIA Advisory Council meetings as necessary.

It is believed that with the change in organizational location of the advisory body, the name should also be changed to drop "policy" and substitute "advisory". Policy considerations and policy responsibilities are at every organizational level and vary according to delegated authority and assigned responsibility. To avoid possible confusion and infringement of the OSD prerogatives and ultimate responsibility for overall policy, the word "policy" should be dropped. However, policy considerations appropriate for its level should be included as one of the ASTIA Advisory Council's functions.

RECOMMENDATION No. 1:

- a. That the ASTIA Policy Council be abolished.
- b. That an ASTIA Advisory Council be established (1) consisting of R&D members to be designated by the Assistant Secretary of Defense (R&E) and the three Secretaries of the military departments respectively, (2) for advising the Air Force executive agent at the headquarters level on the management of ASTIA.

- c. That the ASTIA Advisory Council be chaired by the Air Force member.
- d. That the DOD directive be appropriately revised to include b. and c. above. (See recommended revision, Appendix C)

## B. RELATIONSHIPS WITH ARDC

### Command Channels

Within the USAF command structure, ASTIA is assigned to the Air Research and Development Command. ASTIA matters which require action of higher authority are referred to Headquarters, ARDC, for appropriate action. Such matters include policy questions, programs, budget, funds, organization, manpower, logistic support and security.

The command channels are clear. They are well understood by the staff at ASTIA. However, there exists a feeling on the part of the ASTIA staff that there should be available to ASTIA a direct channel to the ASTIA Policy Council at OSD (R&E) level so as to have access to the three service and OSD representatives. This is felt necessary so as to obtain direction, resolution and/or coordination on ASTIA operational matters affecting or affected by the three services.

The survey group does not concur that ASTIA should have direct access to the ASTIA Policy Council. Such direct access and channel:

- a. Would abrogate the management responsibility of the Air Force executive agent.



- b. Would clutter up a policy advisory body with non-policy considerations.

However, this should not be construed so as to preclude the Policy Council from calling upon the Director of ASTIA to serve in an advisory capacity, when required.

It is believed that the need expressed by the ASTIA staff can be satisfied by two recommended proposals:

- a. Have an ASTIA Advisory Council at service level chaired by an Air Force representative, as proposed in Recommendation No. 1 above. The channel to the ASTIA Advisory Council for policy guidance will be identical to the command channel and much duplication and time will be saved. Also, the advantage of the reverse flow should be pointed out. The decisions of the proposed ASTIA Advisory Council can be expeditiously implemented and monitored by the chairman who has the command channel available to him.
- b. Have operational liaison representatives designated by the three military departments with whom ASTIA can have direct contact and access on operational matters. This proposal is contained in Recommendation No. 2 on page 28.

#### Management Services

The survey group noted a tendency on the part of some of the

Headquarters ARDC to regard ASTIA as a "sacred cow". That is to say, that because ASTIA is a central agency for the Defense Department it could not be managed at the ARDC level in the same manner as a unilateral Air Force activity. Evidence indicates it does not receive management assistance, surveillance or staff visits comparable to that afforded to ARDC centers. The same degree of management initiative, assistance and surveillance should be extended to ASTIA as to a Center. This would not only enhance the stature but will provide greater acceptance of the organization as an integral part of the Air Force family even though it is charged with providing services for the entire DOD R&D community. This would further improve the management and effectiveness of ASTIA.

### C. OPERATIONAL RELATIONSHIPS WITH THE SERVICES

#### Operational Liaison

As was pointed out above, ASTIA functions under the direct command of the Commander, ARDC. This is the single command and policy channel available. This channel is correct for these purposes. However, a significant problem exists for ASTIA in respect to its having a recognized and easily accessible channel to the three services to handle day-to-day operational and procedural detail-type of problems.

ASTIA is affected and governed to a considerable extent in its doing business with the three services and their R&D contractors by the regulations, instructions and directives issued by each of the three

departments. In many instances there are variations between the instructions and procedural requirements of the three departments and particularly the variations in interpretations and application by the components within a department. These variations create extra manhours of effort in ASTIA's operation. Many of these problems are minor in themselves and do not warrant processing through ARDC and the Air Staff to the other department or departments, or to the ASTIA Policy Council. Yet, cumulatively they represent extra manhours which could be eliminated by merely having direct access to specified R&D representatives of the three services who could help to resolve those departmental matters causing operational problems at ASTIA.

Illustrative of such problems would be: (a) Bring to the attention of the department representative low quality of abstracts received repeatedly from that department or a component of that department; (b) Questions on number of copies, some tailoring of number of copies for various subject fields and in light of user demands; (c) Questions of limitations and withholdings from the collection; (d) Procedures for and extent of acquisitioning documents requested by users but not included in the ASTIA collection; (e) Tri-service coordination on a form; (f) Procedures for receiving prompt notification of R&D contract changes, terminations and extensions; (g) Problems on processing reports into the system; (h) Coordination on assigning "Division and Section" categories.

The survey group believes that there is a definite requirement

for ASTIA to have a direct channel to the three military departments for purposes of operational liaison. There needs to be an officially designated point of contact in each department, whom the ASTIA Director or his representative can telephone, correspond with, or meet with relative to operational problems between ASTIA and the department. The Navy-ASTIA Liaison Committee is one application of this concept.

#### Navy-ASTIA Liaison Committee

The Navy Department on its own initiative has established a mechanism for helping ASTIA solve operational problems which it has with Navy. This mechanism is the Navy-ASTIA Liaison Committee. Chaired by a representative of the Office of Naval Research, the Committee includes representation from each of the Navy Bureaus and offices directly concerned with utilization and support of the ASTIA program. ASTIA provides representation by invitation.

The Committee's mission is to effect Navy Department participation in the technical information services of ASTIA and collaborate with the ASTIA Commander and operating staff in insuring efficient, expeditious, uniform and continuing implementation of these services. Collectively, the Committee serves as an advisory group to the Office of Naval Research for planning and executing its responsibilities for Department of Navy participation in the technical services of ASTIA. Individually, the members of the Committee perform such duties as are necessary for



the full utilization of ASTIA services by their respective activities.

The survey group was informed that the Army has given some thought to establishing a similar committee. To date, the Air Force has not announced any plans for such a committee.

#### ASTIA Advisory Council

It should be pointed out that the type of operational liaison channels being proposed by the survey group did exist previously. The Marshall directive of May 14, 1951 provided for an Advisory Council to assist the Director of ASTIA in the operations of the Agency. The Advisory Council consisted of one member from each service appointed by the Secretary thereof. The members of the Advisory Council were to serve as direct liaison between the agency and their respective military departments. The Advisory Council was operated in somewhat formal fashion and by October 1953 had held 18 meetings. With the advent of the McCormack Committee and its study, the Advisory Council evolved into the ASTIA Policy Council of today, advising not the Director but the Assistant Secretary of Defense (R&E).

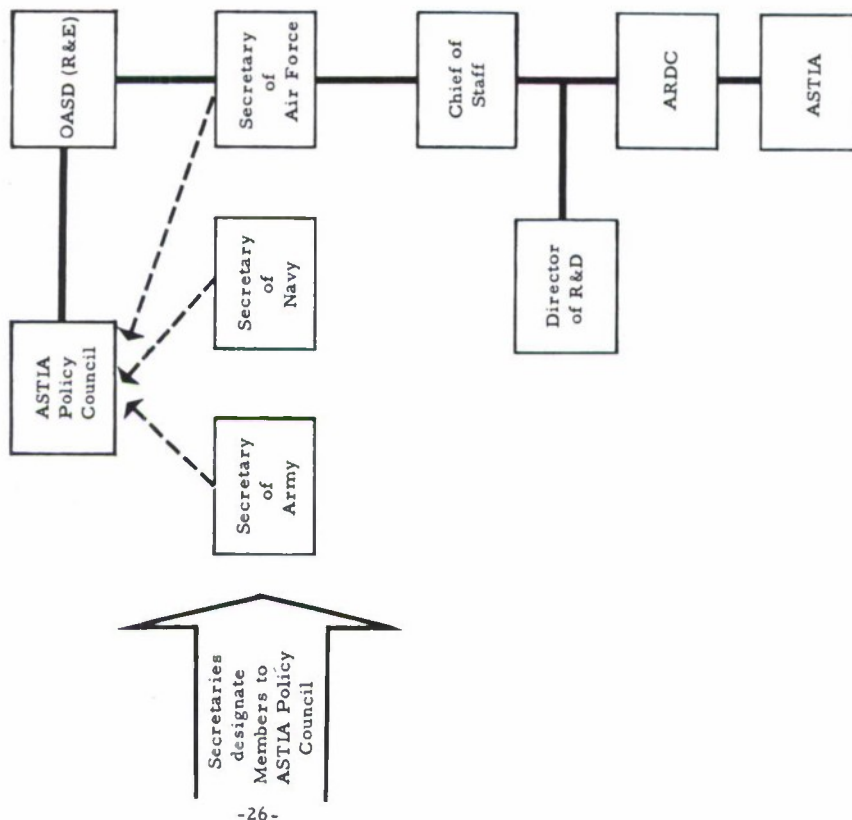
#### Advantages

There is sufficient latitude in the current DOD Directive (5160.4) to permit operational liaison channels and relationships between ASTIA and the three departments. The directive states that:

"They (the Secretary of the Army and Secretary of the Navy) shall also designate properly qualified personnel at appropriate echelons of their departments to perform

# ASTIA RELATIONSHIPS

## PRESENT



## PROPOSED

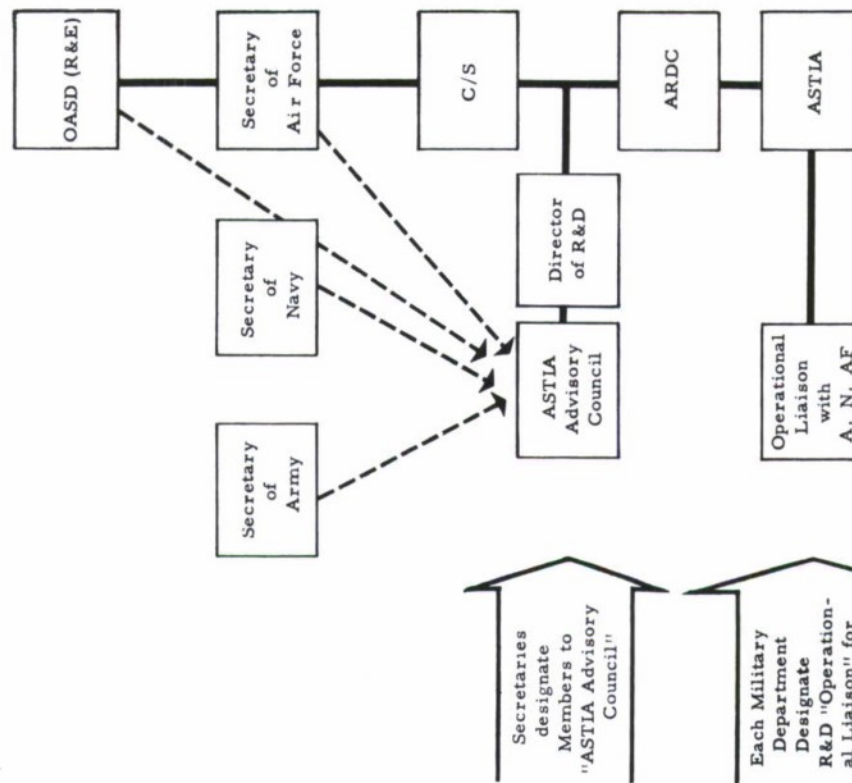


Figure 1

such operational liaison with the Department of the Air Force as may be required. "

It is believed that the Air Force, as Executive Agent, has not exercised sufficient initiative (permissible under the terms of the current directive) in obtaining for ASTIA operational liaison mechanisms and channels with the three departments necessary for improving ASTIA's effectiveness and efficiency. Furthermore, it should prove beneficial to both ASTIA and the other departments for the Air Force to designate an operational liaison representative who can handle such matters within his department. Such a mechanism would further assure concerted, uniform and consistent Air Force effort in cooperating with ASTIA. It would provide a point with which the Director could call upon when seeking tri-service coordination or with which the counterparts in Army and Navy could collaborate and coordinate on ASTIA matters.

The survey group believes that the Commander of ARDC should take steps to obtain the names and offices of these designees from the Army and Navy and require the Director of ASTIA to establish direct liaison with them on operational and non-policy matters.

Advantages of direct operational liaison are:

- a. It will facilitate getting day-to-day operating problems resolved expeditiously and efficiently.
- b. It will provide the Director a means for obtaining tri-service coordination on operating procedures and problems and thereby relieve the ASTIA Policy Council or its

proposed successor, ASTIA Advisory Council, of having  
to consider these kinds of matters.

RECOMMENDATION No. 2:

- a. That properly qualified personnel be designated by each military department to perform operational liaison with ASTIA.
- b. That the Director of ASTIA be authorized and required to utilize operational liaison channels with the Army, Navy and Air Force.



SECTION III  
CONSOLIDATION

Split Operation

As indicated previously, ASTIA was born in 1951 by putting together in one mission and organization the Central Air Documents Office (CADO) and the Naval Research Section (NRS). CADO was then located in downtown Dayton, Ohio. NRS was operating by contract in the Library of Congress. Today, ASTIA remains a geographically split organization. The 272 personnel of ASTIA Headquarters and the Document Service Center occupy 82,500 square feet in the Knott Building in downtown Dayton. The ASTIA Reference Center with 160 personnel occupies 22,000 square feet of space in the Library of Congress.

The split operation is a costly and inefficient way to operate. A considerable amount of duplication results. This is particularly true in the guard system, mail facility, logs and registers, storage, supplies, descriptive cataloging, catalog maintenance, typing, proofreading and supervision. The split operation is not only wasteful of manhours and dollars, but requires considerably longer processing time to obtain the end product. The input of documents to the Document Service Center in Dayton for which catalog cards and abstracts are to be produced are bundled up and shipped to Washington. The reproduction "copy" for the printing of catalog cards and abstracts is shipped from Washington to Dayton.

Printed cards are returned to Washington for the catalog reference and stock requirements of the ASTIA Reference Center. This shipping and mailing back and forth results in shipping and postage costs.

The ASTIA staff estimates that sixty manning spaces can be saved by consolidation of ASTIA at one location. The survey group believes that sixty is a conservative figure and that perhaps as many as eighty to a hundred spaces can be saved.

The split operation has long been recognized as not being economical, efficient or desirable. It has been one of the root causes for many of ASTIA's problems. The McCormack Committee in 1954 recommended that "the ASTIA organization should be brought together physically without delay in the Washington area". ARDC and the former Assistant Secretary of Defense (R&D) have in the past attempted to obtain space in the Washington area so as to consolidate ASTIA. These attempts were unsuccessful. The Harris Committee in 1955 took a different approach and recommended that at least the ASTIA Headquarters be consolidated under the same roof at Dayton. The ASTIA Headquarters was then moved in July 1955 from Washington to Dayton.

#### Location

The official position of the Air Force on this matter was stated in a memorandum to the Secretary of Defense from the Under Secretary of the Air Force on January 12, 1957, subject: "Relocation of the Armed

Services Technical Information Agency (ASTIA). The memorandum stated that there was an urgent requirement for the consolidation and relocation of ASTIA and requested approval for its consolidation in Washington and that the necessary space be obtained.

The requirement for locating in the Washington area was also supported by the ASTIA Policy Council and by the Office of Naval Research.

The former Deputy Assistant Secretary of Defense (R&D), in a memorandum to the Under Secretary of the Air Force on February 20, 1957, pointed out the criticalness of the space situation in the Washington area, and suggested that "consideration be given to new construction, preferably in connection with the Air Research and Development Command Headquarters at Andrews Air Force Base". It is understood that the Air Force has investigated the possibility of using Andrews AFB and found no suitable existing facilities available.

The Air Force's position of requiring consolidation in the Washington area is based on two factors: first, to achieve economy and effectiveness in fulfilling its mission, ASTIA must physically consolidate its major operating components in a single, adequate building; second, to avoid prolonged disruption of ASTIA's functions, the consolidation must be effected in a way that will minimize the loss of essential personnel.

The "key personnel" factor appears to be one of the principal arguments used by the proponents of consolidating in Washington. The

Dayton staff is composed largely of Wage Board and clerical employees -- more than 80% fall in these categories. It is argued that these employees could be replaced if necessary with comparative ease. The Washington contingent, on the other hand, has a much larger proportion of hard-to-get professionals -- individuals who have academic training and practical experience in both library science and the physical sciences. It has been stated that their replacement would be difficult in Dayton where the specialized skills involved are not readily available. Another argument advanced in favor of Washington is the benefit to be gained by having ASTIA centralized in close proximity to other agencies and activities concerned with scientific and technical information.

The survey group believes that the most important thing here is the absolute necessity for consolidation. It can be deferred no longer. The Librarian of Congress has stated that he desired to terminate the contract as of June 30, 1957. However, the Air Force has appealed to him to grant a six months' extension to December 31, 1957 with a possible additional sixty days, until consolidation at a suitable location can be effected. ASTIA's money and manpower are short of its requirements. It must effect the economies and efficiencies available to it through consolidation.

The survey group does not recommend one location over another. The particular site is secondary to the necessity for consolidation. However, in the opinion of the survey group, initial efforts must be directed



toward consolidating either in Washington or Dayton. The survey group feels that moving to a third location would be too disruptive and costly.

In weighing one location against another, certain factors should be borne in mind:

- a. The catalogers and abstracters are in Washington in the ASTIA Reference Center. It was indicated that only a few of these (not more than 20%) may stay with ASTIA after contract termination if the consolidation is effected in Dayton.
- b. Requirements for catalogers and abstracters will decline to a minimum when the pre-publication cataloging system recommended elsewhere in this report becomes operative.
- c. Potentialities of tapping sources in the Ohio area such as Western Reserve University for professional librarian and documentation skills.
- d. The possibility of the comprehensive bibliography function, which must be in the Washington area, being continued by the Library of Congress.
- e. Large portion of ASTIA is a mail-order business.
- f. ASTIA must have access to good post office facilities.
- g. There should be available reproduction facilities with which ASTIA could contract for work.

- h. Sufficient space on one floor to house the Document Processing and the Customer Service operations.
- i. Realistic square footage requirements. For example, the Director of ASTIA has stated his space requirement is 150,000 square feet. This is 45,500 square feet more than occupied at present (82,500 square feet in the Knott Building and 22,000 square feet in the Library of Congress -- a total of 104,500 square feet). The survey group believes that there are a number of actual and potential factors which will cause a significant reduction in the square footage requirement: (1) reductions in personnel (for example, at least 57 -- the difference between the present combined 432 and the proposed initial 375); (2) elimination of duplication in operating facilities, mailrooms, supply rooms, reception rooms, storage space, etc.; (3) full exploitation of programs for disposing of inactive reports or storing them in other areas; (4) smaller reproduction facility in light of possible expanded utilization of contractual services. The survey group believes 85,000 to 90,000 square feet to be a more realistic requirement for immediate operating space.

RECOMMENDATION No. 3

That the organizational elements now separated geographically be consolidated at one location by not later than January 1, 1958.

The survey group believes that the implementation of this recommendation is most important and holds the key to expeditious and successful implementation of other recommendations in this report. It is the Group's opinion that until a location decision is obtained it will be necessary to actively proceed with developing plans for consolidating in present space at Dayton, Ohio. This will require a rather drastic realignment of space assignment in the Knott Building.

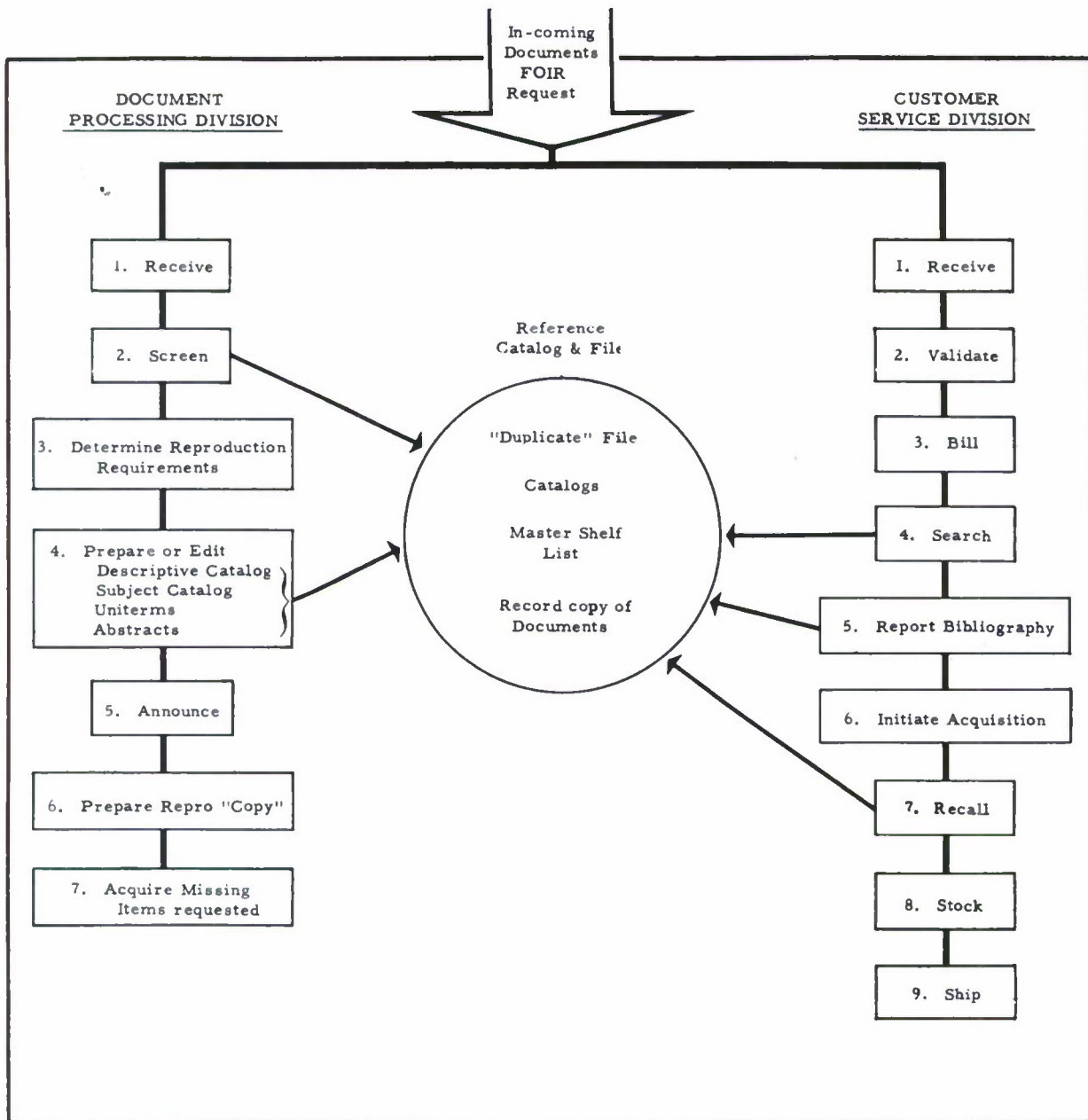
#### Physical Layout

The physical layout of the ASTIA Reference Center at the Library of Congress appeared to be satisfactory from a work flow standpoint. The survey group noted that personnel were cramped for working space. In contrast with the all-one floor operation of the ASTIA Reference Center, the activities in Dayton occupy four floors of the Knott Building -- a converted department store. The physical layout of the Knott Building is not conducive to optimum operations, but it could be utilized more effectively than it is at present. The work has to flow back and forth between the several floors. Some Branches are split between several floors. The need for the existing split in certain operations between floors is questionable.

On the next page, the survey group suggests a desirable one-floor arrangement for the functions of the proposed Document Processing Division and proposed Customer Service Division. This arrangement

SUGGESTED FLOOR SCHEME

for  
DOCUMENT PROCESSING DIVISION & CUSTOMER SERVICE DIVISION



One Floor

Figure 2



can be attained to only a limited degree in the Knott Building. Placing the Document Processing Division and the Customer Service Division around the reference catalogs and reference collection -- on one floor -- would be the ideal objective in plant layout. It should receive primary consideration in the selection of any new facility. The constant utilization of the reference catalogs and reference collection is essential to the operations of both Divisions. Having this hub easily accessible to both Divisions will eliminate much of the need to keep duplicate catalogs and records. It will reduce transit time, speed up operations and save manhours.

## SECTION IV

### ORGANIZATION AND FUNCTIONS

#### A. PRESENT ORGANIZATION

As indicated in the previous Section, the number one ASTIA problem is to find a location where the agency can be brought together. The physical consolidation at one location is not itself the end objective but merely the means to achieving the end objective which is of course to integrate and realign functions and workflow -- consolidate organizationally -- so as to accomplish the total mission more effectively, economically and efficiently. That this has not been done, either by contract or within the military departments, stands as possibly the worst deficiency in the management of the ASTIA mission. There is presented in this Section of the survey report a plan for the organizational consolidation of ASTIA. The present organization is described briefly first so as to facilitate a better understanding of the proposed reorganization discussed later.

#### ASTIA at Dayton

The Dayton part of ASTIA consists of the Offices of the Commander, the Deputy Commander and an Executive Officer. Under this chain of command is but one major operating element -- the Document Service Center. The Chiefs of the three Branch Offices (New York, Los Angeles

P R E S E N T   O R G A N I Z A T I O N   O F   A S T I A   - -   A T   D A Y T O N

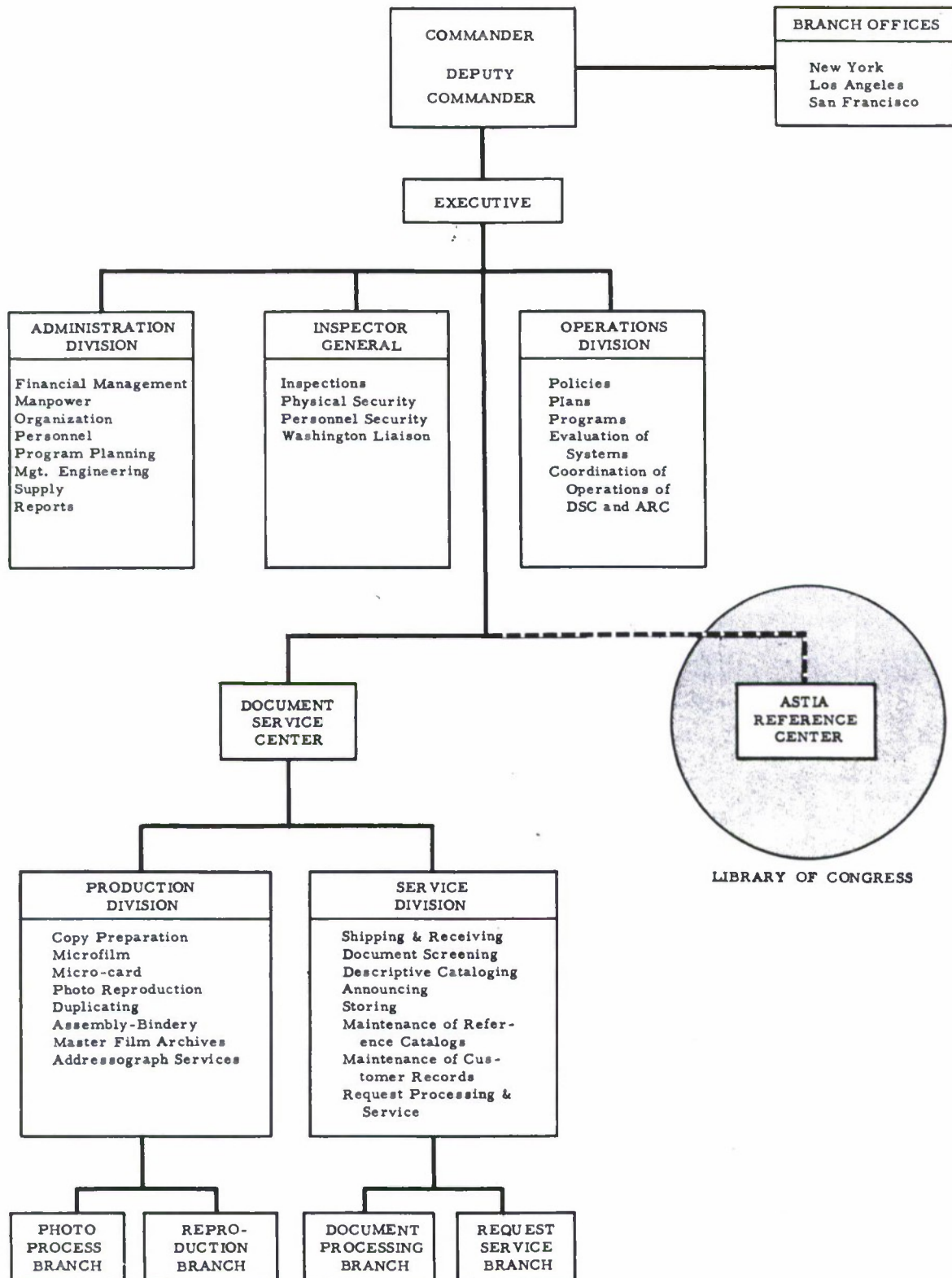


Figure 3

and San Francisco) report directly to the Deputy Commander. There are three staff elements: Administrative Division, Inspector General, and Operations Division. The chart on page 39 shows the present Dayton organization -- the military department organization.

The survey group believes that it is not sound organizational practice to place all of the operating functions (and approximately 220 personnel out of 272) in one organizational segment under a single supervisor. The weakness is that several unnecessary successive supervisory layers (i. e. , Chief, Document Service Center, and Chief, Service Division) are interposed between the Branch Chiefs and the Deputy Commander and Commander.

The relationship of the Commander to the ASTIA Reference Center is not one of direct supervision comparable to the Document Service Center, but one of contract monitorship and Air Force guidance, as necessary.

#### ASTIA Reference Center (Washington)

The organization of the ASTIA Reference Center in the Library of Congress is shown in the chart on page 41 . As can be seen from the chart, the ASTIA Reference Center is in the Technical Information Division of the Library's Reference Department. In addition to the ASTIA Reference Center, the Division operates the Bibliography Section, which though administered by the ASTIA Reference Center actually accomplishes continuing comprehensive bibliographic tasks for components of the Army,



# TECHNICAL INFORMATION DIVISION (TID)

REFERENCE DEPARTMENT ▲ LIBRARY OF CONGRESS

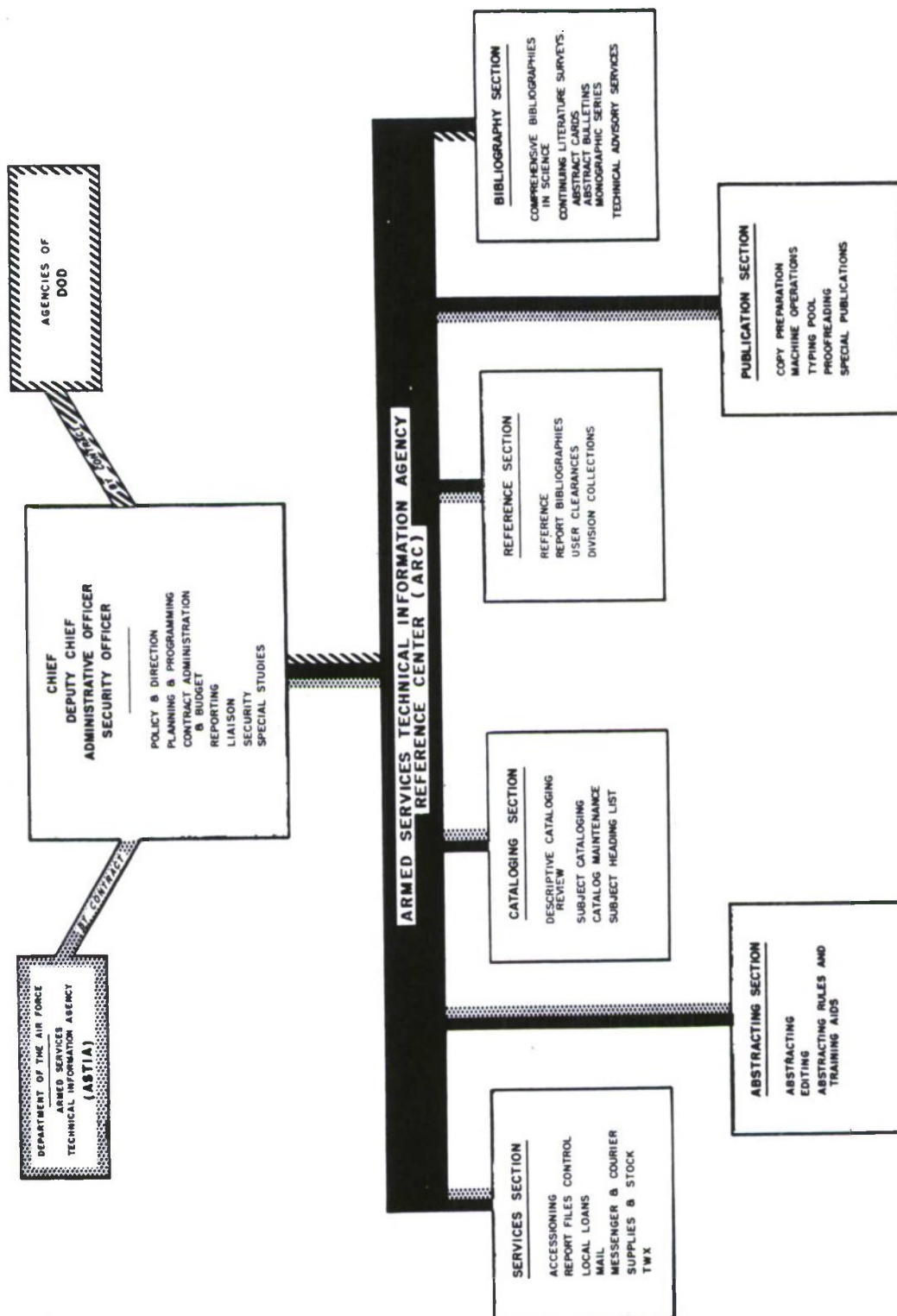


Figure 4

Navy and Air Force through separate contractual arrangements. The ASTIA Reference Center is broken down organizationally into six functional operating elements in contrast to the one organizational breakdown of operating functions in Dayton -- the Document Service Center.

#### B. PROPOSED ORGANIZATION

The survey group urges that action be taken at the time of the physical consolidation to reorganize ASTIA as shown on the chart on page 43.

##### Deputy Director

The survey group believes that the Deputy Director should be a civilian. One of the two top positions of leadership in the organization should be filled by an individual who, in addition to having displayed managerial ability, is highly qualified through education, training and experience in the specialized area of documentation and bibliographical services. Career military officers do not normally have these background qualifications. The Deputy Director position as a civilian position will have a salutary effect upon the civilian staff, knowing that it is possible to aspire to a top position through progression in one's career. Also, a civilian Deputy Director will provide continuity of experienced leadership and direction, and continuity of external contacts during the rotation of the military Director. This action would be consistent with provisions

PROPOSED ORGANIZATION - ASTIA

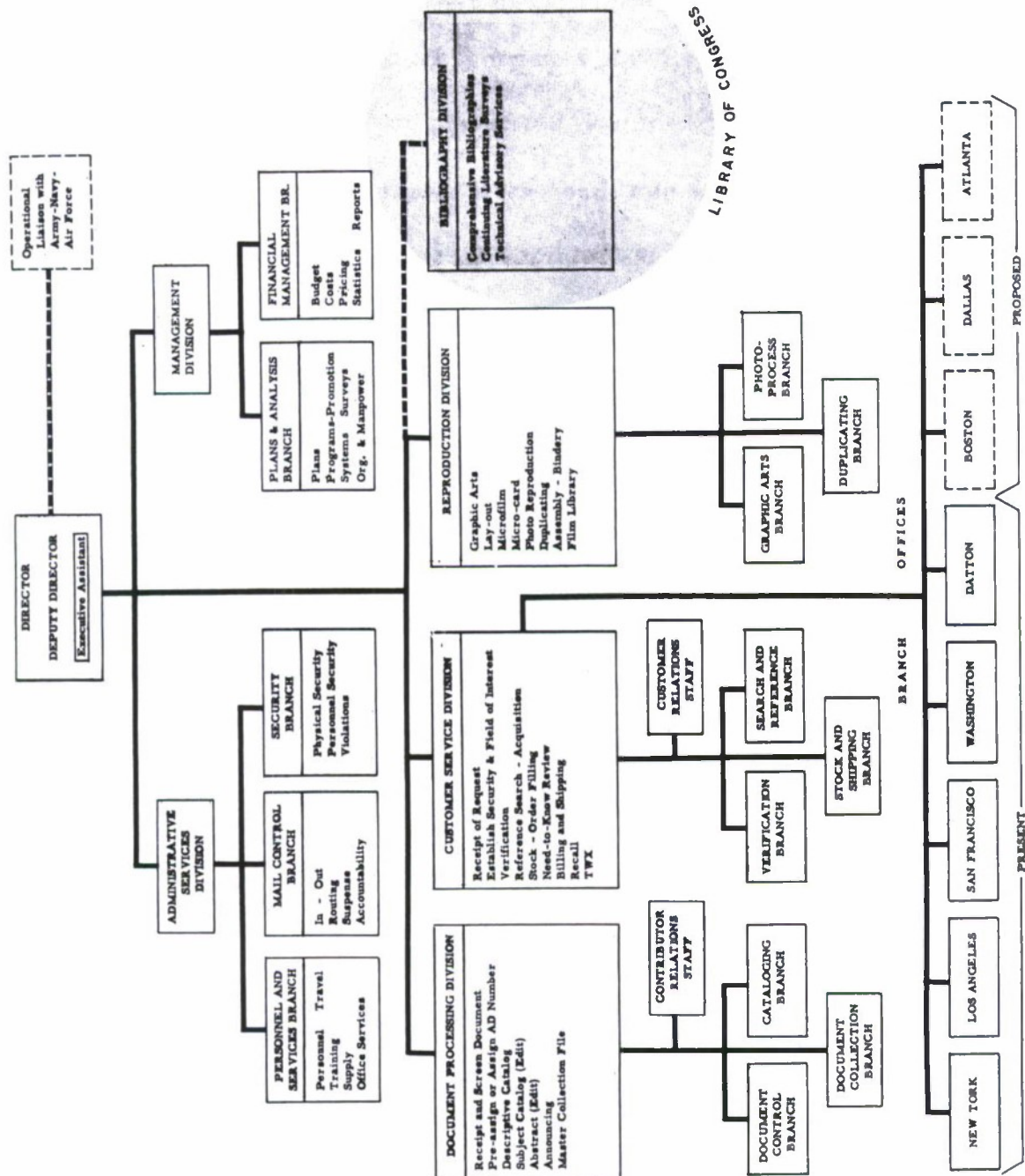


Figure 5

of DOD Directive 1100.9, dated April 24, 1957, subject: Military-Civilian Staffing of Management Positions in the Support Activities.

#### RECOMMENDATION No. 4

That the Deputy Director be a civilian rather than a military position.

#### Staff Elements

Presently, ASTIA has three staff elements. Located in Dayton, these are the Administrative Division, Inspector General and Operations Division. The functions are indicated briefly on the chart on page 39. The survey group proposes that some of the existing functions be realigned, some be eliminated and some new ones be added. Under the proposed organization there would be two staff elements instead of three.

#### Administrative Services Division

Personnel and Services Branch -- As at present, ASTIA would have no civilian personnel officer and would obtain personnel services and training assistance from WADC or some other nearby Air Force installation designated to service ASTIA. The personnel and training functions in the Branch would consist of personnel counseling; processing, reviewing and controlling requests for personnel action and requirements for assistance in training; carrying on liaison and coordination with the civilian personnel office designated to provide such service; and, reviewing and transmitting time and attendance records. Development, guidance and monitorship of internal and external training programs would be functions of this Branch.



The supply and office service functions would not be changed.

Mail Control Branch -- The functions of this Branch would be to record and centrally control incoming mail; route mail; account for money received for request services; maintain suspense controls and follow-up; review outgoing correspondence for mechanics of preparation; maintain security control over classified documents; maintain registry and necessary records for outgoing mail. These functions for the most part are now performed by the Shipping and Receiving Section of the Services Division. Inasmuch as the mail control functions are common service functions for the entire organization, these functions should be organizationally removed from an operating division (presently the Services Division) and relocated centrally in the proposed Administrative Services Division.

Security Branch -- This Branch would replace the Inspector General Division and continue performing functions of physical and personnel security and investigations of security violations. Other functions associated with the Inspector General mission would be eliminated at ASTIA and be performed by the Inspector General organization or ARDC. This would result in a small saving in manpower with no impairment to the effective accomplishment of the ASTIA mission.

Management Division

Plans and Analysis Branch -- This Branch would be responsible for developing long-range plans and programs, formulating overall internal ASTIA policies, making organization, manpower and systems studies

or developing guidance for and reviewing and coordinating such studies. It would develop programs for the promotion of ASTIA techniques. It would develop requirements for and monitor research and development programs in new documentation techniques and equipment and the application of automation. This Branch would also be responsible for developing and publishing guidelines, standards and instructions for cataloging and abstracting. These would be used by the document originators in doing the cataloging and abstracting when they have completed writing their documents.

The survey group noted that there exists an overlapping of management engineering, planning and programming functions between the present Administrative Division and the Operations Division. This overlap would be eliminated by consolidating the functions into the proposed Plans and Analysis Branch. The survey group believes that more emphasis must be given to the performance of this Branch's functions than heretofore.

Financial Management Branch -- There would be assigned to this Branch the budgeting, financial planning and statistical reporting functions currently being performed in the existing Administrative Division. Some functions new to ASTIA would also be assigned to this Branch. These are the functions of establishing costs of operations under the new funding concept, establishing prices to charge users for ASTIA services, and accounting for income and expenditures.

Document Processing Division

The proposed Document Processing Division organization can

be better understood by discussing the concepts being proposed for the Division's mission and functions.

The mission of the Document Processing Division should be to receive, process, maintain, store and retrieve scientific and technical documents of the Department of Defense and other domestic and foreign agencies as appropriate. This mission is a basic government responsibility and will continue so long as there is an ASTIA. Any curtailment of ASTIA mission and functions due to money and manpower shortages and contract problems should be permitted to effect the Document Processing Division the least of any of ASTIA's organizational elements. A chart depicting the volume of documents received and the number introduced into the system over the past four years is shown on page 48.

Document Control Branch -- After the in-mail processing functions are performed by the Mail Control Branch, the Document Control Branch would receive the input of documents and screen them for pertinency to the ASTIA collection, i. e., to see that the document is not in one of the ten "exclusion" categories specified in AFR 205-43 (AR 380-60; OPNAVINST 5510.17A). Records of destruction for documents to be destroyed would be prepared. This Branch would be responsible for pre-assigning blocks of AD numbers to contributor agencies and providing a control as documents are received in the input. In instances where documents come in without AD numbers (e. g., Canada; NATO sources) the Branch would assign AD numbers.

# ANALYSIS OF ACCESSIONS

(Projected)

	FY 1954	FY 1955	FY 1956	FY 1957
REPORTS RECEIVED - GROSS	275,626	240,159	292,723	240,000
- VALUELESS		21,098	43,498	-
REPORTS - DESCRIPTIVELY CATALOGED	29,891	34,899	34,291	34,000
REPORTS - SUBJECT CATALOGED	18,278	22,754	33,897	32,000
REPORTS - ABSTRACTED	11,683	13,961	16,815	16,000

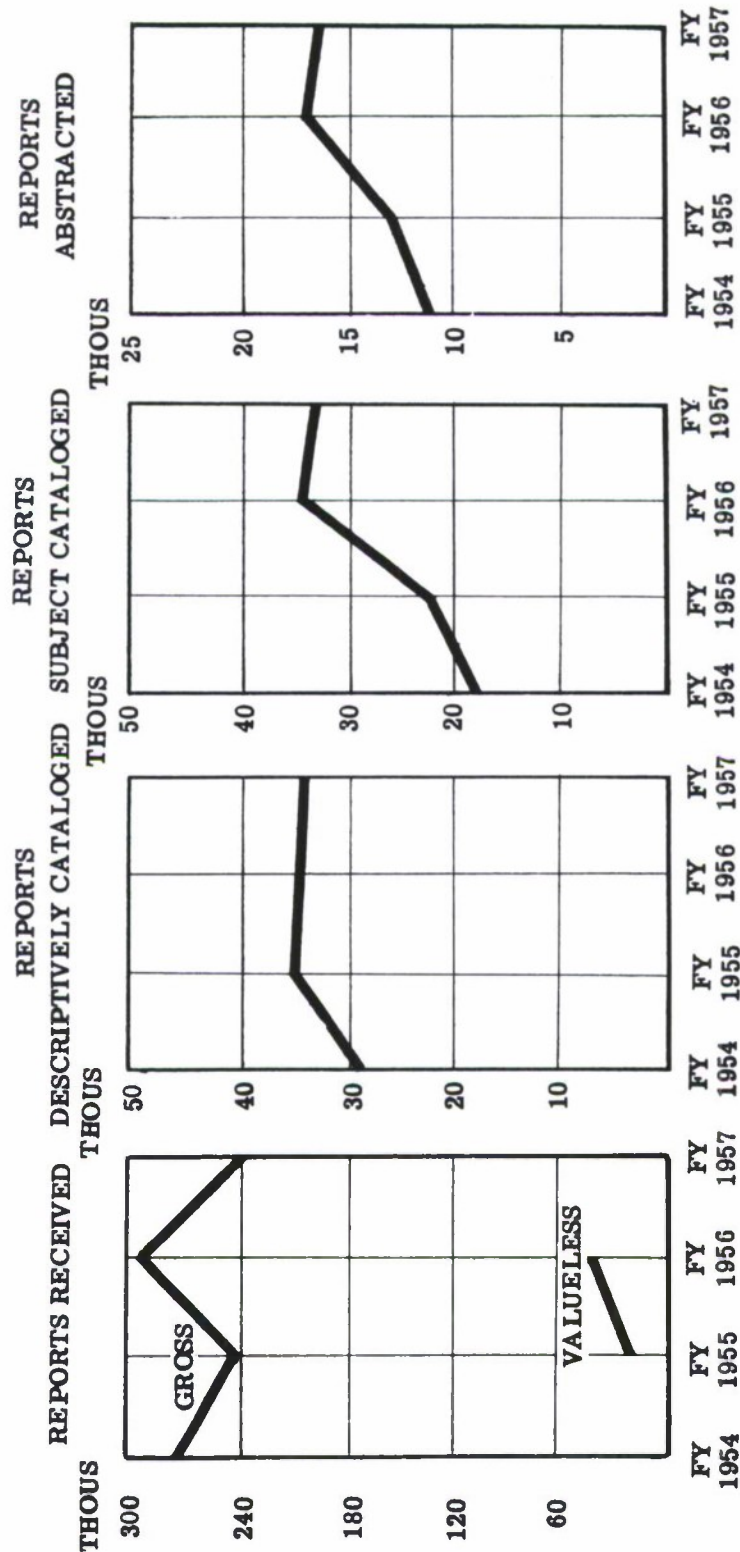


Figure 6



This Branch would have functions of acquisitioning documents not in the ASTIA collection and requested by the Customer Service Division, and of acquiring additional copies and more legible copies. ASTIA presently expends extensive effort in exploiting military, contractor, educational and governmental agencies to acquire documents. It endeavors to acquire documents pertinent to the ASTIA mission for its basic collection and to fill specific valid requests for documentary information which is not available in ASTIA holdings. The survey groups believe that the effort expended in this undertaking must be reduced to contacting a minimum and reasonable number of sources.

Cataloging Branch -- The system of pre-publication cataloging and abstracting by the originator of the document is proposed on pages 67 to 74 of this report. Under this system the descriptive catalog information, the abstract, and to the extent feasible, suggested subject headings and uniterms would be furnished with the document by the originator or his cognizant military department in accordance with standard guidelines put out by ASTIA. With this type of information in the document when received by ASTIA, the Cataloging Branch would edit the descriptive catalog information and the abstract and determine appropriate subject headings and uniterms.

The installation of this system in the Department of Defense and its research and development contractors would drastically reduce the cataloging and abstracting workload at ASTIA. It is realized that the

conversion from the present functional requirement for ASTIA to do the cataloging and abstracting to the proposed greatly reduced function of merely editing catalog and abstract information, would have to be on a phased basis. The survey group believes that it is possible for the research and development originators and ASTIA to accomplish this conversion in a period of six months.

ASTIA would need some additional manning spaces to absorb the cataloging and abstracting functions as the Library of Congress (i. e. , ASTIA Reference Center) phases out of the operation through contract termination and until the originator cataloging and abstracting system becomes fully operative. At this point, then, the workload would have diminished to a point where ASTIA should be able to reduce some of the above additional manning. However, it is believed that at that time the manpower requirements should be evaluated again in light of the then-existing workload and the cataloging and abstracting functions.

The typing and preparation of "copy" (e. g. , the present Form 16) for the production of catalog cards and the preparation of various indices for TAB would be performed by the Cataloging Branch.

The Cataloging Branch would also perform the functions of (a) selecting items for inclusion in the various editions of TAB, and (b) screening documents to determine quantitative requirements for reproduction of the document and micro-cards.

Document Collection Branch -- This Branch would be responsible for maintaining master shelf lists and reference catalog files. It would

be responsible for reflecting therein the current security classifications of documents and titles. It would prepare bulletins of all changes in security classification for publication in TAB. In addition to maintaining the reference and retrieval media, the Branch would maintain the one record copy (other than microfilm) of each document in the collection. It would be responsible for the orderly retirement of documents. This Branch would furnish a limited amount of reference assistance to other elements of ASTIA.

Contributor Relations Staff -- This staff would consist of two or three people who would carry on liaison with the contributing government agencies down to laboratory and center level and with contributing research and development contractor laboratories. The function would be that of promoting better relationships between the contributor and ASTIA and assisting contributors with the input process relative to ASTIA. This staff would have no authority to direct. The personnel would visit the contributors at appropriate echelons to assist them by answering questions, trouble shooting on the spot, and ferreting out and identifying problem areas. Problems and weaknesses in ASTIA's requirements and methods of operating, identified from the contributors' viewpoint, would be referred to the Chief of the Document Processing Division. Depending on the nature of the problem, the Division Chief could take corrective action or refer it to the Director (and his Operational Liaison channel) discussed on pages 22 to 28 or to the Plans and Analysis Branch, Management Division, for their analysis. The Plans and Analysis Branch would

develop improved procedures, modify programs or clarify guidelines, as appropriate.

Illustrative of the types of problems that the survey group visualizes the Contributor Relations Staff would assist in are the following:

- a. Reduce number of ASTIA's acquisition actions. Clarify procedures and channels ASTIA should use in requesting acquisitions from the military agencies.
- b. Reduce limitations of distribution.
- c. Explain procedures and answer questions leading to better quality and standardization of cataloging and abstracting.
- d. Overrun supply of popular items.
- e. Assist contributors in developing primary distribution lists.

The Contributor Relations Staff function will do much to achieve harmonious acceptance of ASTIA input requirements, to improve the ASTIA collection and utility, and to reduce workload at ASTIA.

#### Customer Service Division

The mission of the Customer Service Division would be to fill to the extent feasible and within appropriate security limitations the requests from users of ASTIA services. These requests may be for full-size copies of documents, micro-cards, micro-films, catalog cards, and report bibliographies. There are presently 3027 users of ASTIA, broken down as follows:



Army	354
Navy	477
Air Force	916
Joint Agencies	<u>33</u>
Total Department of Defense	1,780
Other Government Agencies	100
Non-government R&D contractors (servicing 2449 contracts)	<u>1,147</u>
Total	3,027

Users of ASTIA generated a volume of 391,076 requests in FY 1956. 496,000 requests are estimated for FY 1957. The Customer Service Division would be financed by income from service charges. A chart depicting the volume of user requests made and filled over the past four years is shown on page 53.a.

Verification Branch -- This Branch would:

- a. Maintain the ASTIA Field-of-Interest Registers, contract records and facility security clearance registers.
- b. Receive and validate requests against established security clearance, contract, and field of interest.
- c. Compute service charge and, when appropriate, overage or shortage of advance payments by customers.
- d. Maintain records of documentary material released to ASTIA users. Recall classified documentary material when required by the cognizant military agency on termination of contract.

Search and Reference Branch -- This Branch would:

- a. Search reference catalogs as necessary to fill written requests,

# ANALYSIS OF REQUESTS FOR REPORTS

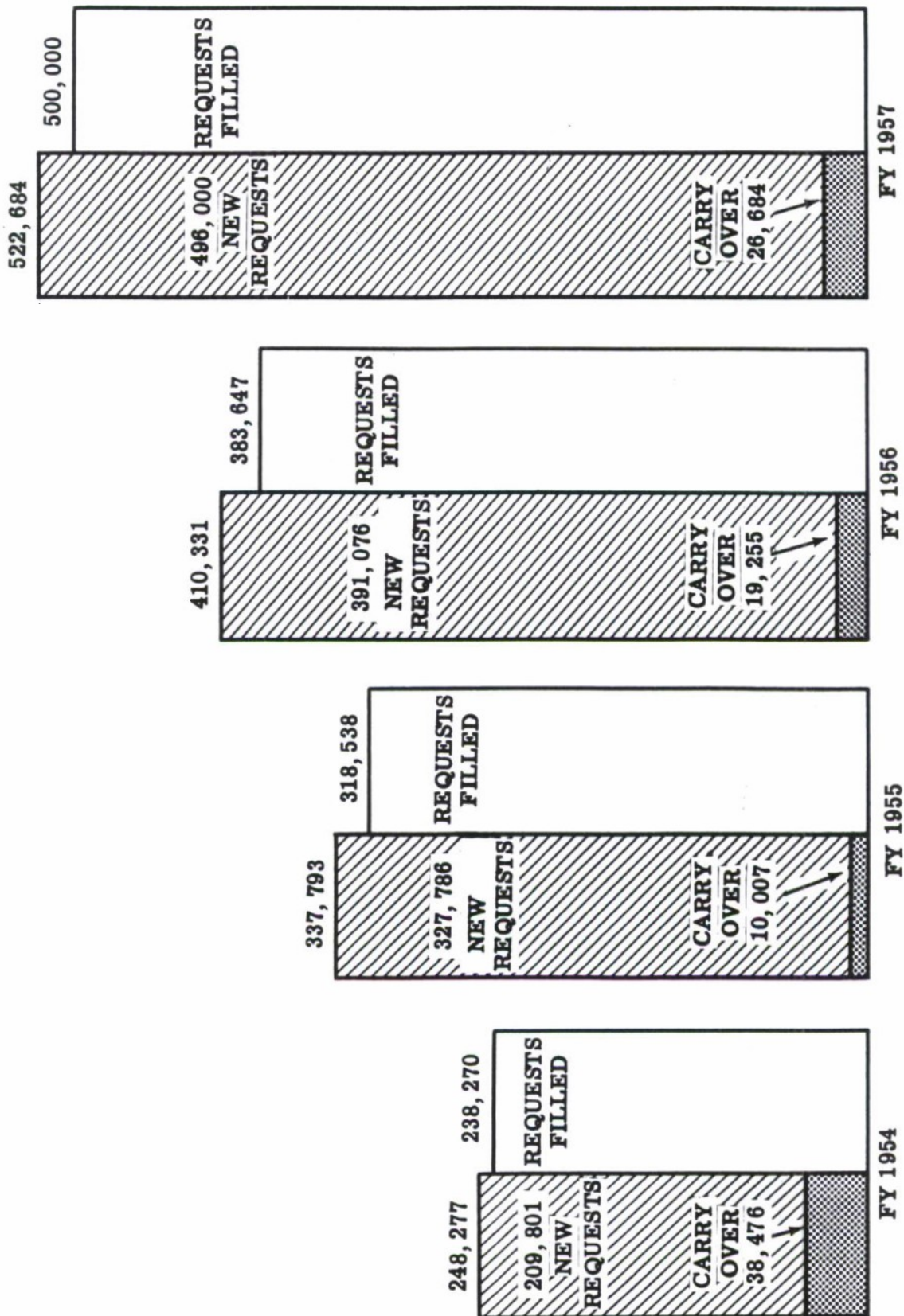


Figure 7

telephone requests, personal visits, and TWX requests from Branch offices.

- b. Initiate requests for acquisitions to fulfill users' requests.
- c. Prepare report bibliographies.
- d. Provide micro-card reader service locally.

Stock and Shipping Branch -- This Branch would be responsible for the following:

- a. Maintain stock of extra copies of documents, micro-cards and catalog cards.
- b. Maintain inventory control.
- c. Prepare orders for shipment.
- d. Maintain TAB subscription list and distribute TAB.

Customer Relations Staff -- This staff of two or three people would be responsible for maintaining liaison with the ASTIA users for the purpose of promoting better utilization and understanding of ASTIA services on the part of the users. These people would visit new research and development contractors to assist them in getting established as certified users. They would help them with Field of Interest Registers, for example. They would investigate user complaints and ways of improving procedures to speed up service and reduce red tape. The findings and procedural shortcomings identified by this Office would be turned over to the Chief of the Customer Service Division. The Customer Relations Staff would operate in much the same way as the Contributor Relations Staff as discussed earlier. Here also, the Plans and Analysis Branch in its



development of plans, programs and systems would study and consider the problems and weaknesses identified by these Customer Relations people. This will further assist ASTIA to tailor its services to better fill the user requirement.

It may appear that the two "Relations Staffs" recommended by the survey group would be criss-crossing and overlapping each other. Eventually, this will probably become the case. However, the survey group believes that the number of problems and day-to-day details and the geographical spread are of such magnitude to amply justify two small separate "Relations Staffs" in ASTIA. It will take at least a year or two for the stockpile of relations problems and procedures to be worked out so as to operate smoothly and thus require less attention. At the end of a two-year period or possibly sooner, the requirement for the two "Relations Staffs" should be re-evaluated and consideration given to consolidating and absorbing the functions in the Plans and Analysis Branch of the Management Division. It would not be sound to put these functions in the Plans and Analysis Branch at this time. Although the functions are homogeneous to the programming and systems analysis functions of the Plans and Analysis Branch, the subject matter is predominantly day-to-day details. These would divert necessary attention and manpower from the Branch's overall and long-range planning, programming and systems work which also needs additional impetus at this time. It is better to keep the two (day-to-day operational details and overall and somewhat longer-range matters) organizationally separated so as to



receive the emphasis and attention appropriate for the situation currently confronting ASTIA.

Branch Offices -- As indicated above, it is essential that frequent contact be made with users to ascertain their problems, reactions, and extent of acceptance and utilization of ASTIA services. It is believed that this should be the function of the Customer Relations Staff primarily, rather than that of the Branch Offices as at present.

The mission of the Branch Offices is and should be the provision of customer service to users on a local basis at certain cities which are in the center of regional concentration of R&D contractors. There are presently three fairly autonomous Branch Offices: New York, Los Angeles and San Francisco. The San Francisco Office was in the process of being established during the period of this survey. There are also facilities within the ASTIA organizational elements at Dayton and Washington which are less autonomous but perform essentially the same functions for the users of those areas.

The functions performed by Branch Offices presently include:

- a. Maintenance of appropriate catalog and reference files of the ASTIA collection.
- b. Maintenance of file of ASTIA documents on micro-cards.
- c. Provide reference and reading room service.
- d. Visits to R&D agencies and contractors in the local area to assist users in the utilization of ASTIA services, and resolve problems and complaints.

By assigning function d. above (assistance and promotion visits) to the Customer Relations Staff, there will be a reduction in manhours and workload in the Branch Offices. The Branch Offices will be able to reduce in personnel. It is believed that under this concept three or four personnel will be quite adequate to handle the workload of a Branch Office. The external visits would be the responsibility of the proposed Customer Relations Staff. The advantages of this proposal are, in addition to the savings in manning spaces:

a. A more complete geographical coverage than Branch Offices are able to accomplish.

b. More consistent and uniform promotion relationships and problem solving assistance.

At present, the Chiefs of the Branch Offices report to the Deputy Commander of ASTIA. It is recognized that this arrangement is a considerable improvement over previous arrangements. However, the survey group believes that no advantage is achieved by having these Branch Office Chiefs report directly to the Deputy Commander. The functions as proposed for the Branch Offices are definitely part of the Customer Services Division's functions. The Branch Offices should be extensions of the Customer Services Division and should report directly to that Division Chief.

The services furnished by the Branch Offices relieve considerably the workload burden at the Dayton and Washington centers. Using the catalogs, and screening documents and abstracts locally by the users

tends to both reduce requests and to make requests more specific. This reduces needless request submissions and processing and reproduction operations. This, in turn, permits faster and more efficient service to be rendered by the ASTIA centers. The survey group was told that the reaction of local ASTIA users to the Branch Office services has been enthusiastic.

The Harris Committee in 1955 recommended the expansion and strengthening of the field service phase of ASTIA's operation. The Director of ASTIA has developed plans to open Branch Offices in Dallas and Boston. The requirement for an Atlanta office is under consideration. The survey group encourages the establishment of Branch Offices where and when concentrations of R&D users justify such action. In this connection, however, the survey group believes that consideration should be given to utilizing, whenever possible, the established regional offices (space, facilities and staff) of military agencies such as the Office of Naval Research and ARDC. For example, it is understood that the Boston Branch Office of ONR has the ASTIA reference catalogs and is serving Navy's (and perhaps others) ASTIA users in the Boston area. It is believed that duplication can be eliminated, economy effected, and all potential users adequately satisfied if collective arrangements are made to use existing space, facilities and staff or at least some cooperative sharing of the space and facilities and some cooperative contribution toward staff support. The feasibility of using common and cross-service should be looked into.

## Reproduction Division

It is proposed that the present Production Division be redesignated as the Reproduction Division. The new name is more descriptive of the Division's reproduction functions. There would be no change of functions except for one. The typing and proofreading function presently performed in the Repro Copy Unit would be transferred to the proposed Cataloging Branch.

The implementation of the recommendations in this survey report should result in a sizable reduction in the present number of manning spaces for the Reproduction Division. Several factors which may effect a reduction in the Division's workload are:

- a. Service charge system should reduce the rising user demands and tend to have a levelling-off effect.
- b. TAB as an abstract bulletin should reduce number of requests.
- c. Reproduction of TAB from catalog card "copy".
- d. Increased utilization of micro-cards because of cheapness of the item and the promotional results of the Customer Relations Staff with the users should reduce reproduction requirements for full-size copy.
- e. Judicious determination of quantitative requirements for reproduction. This determination would be part of the input process of the Document Processing Division.

The survey group believes that ASTIA should adopt the policy of contracting with the Government Printing Office, other existing government facilities and commercial firms for reproduction services on the unclassified documents, and if security requirements can be met, also on the



classified portion. Through such action there should be no greater cost to the government, but quite possibly a saving. A further saving in manning spaces could definitely be effected.

Graphic Arts Branch -- This Branch would be responsible for providing art work, illustrations and layout work.

Photo-Process Branch -- The functions of this Branch would remain unchanged.

Duplicating Branch -- This Branch would perform the functions presently performed by the Duplicating Section, Requirements Section and Reproduction Control Section.

#### Advantages

The proposed reorganization provides for the homogeneous grouping of functions and separation of staff and line functions. Advantages which the proposed reorganization has over the present organization are:

- a. A better balanced span of control.
- b. Clearer delineation of functions into homogeneous groupings.
- c. Elimination of functional overlap. See the chart on page 61 for some of the present specific functional overlaps.
- d. Clearer lines of authority and shorter lines of communications.
- e. Organizational provision is made for handling external relationships.
- f. Saving of manning spaces.
- g. Flexibility for future expansion or contraction.

# DIVISION OF ASTIA FUNCTIONS

	ASTIA REFERENCE CENTER	DOCUMENT SERVICE CENTER
1 RECEIVE TECHNICAL REPORTS ON AUTOMATIC DISTRIBUTION		<u>SOLE RESPONSIBILITY</u>
2 OBTAIN REPORTS NOT IN THE ASTIA COLLECTIONS	<u>LIMITED RESPONSIBILITY</u> ARC USE ONLY	<u>MAJOR RESPONSIBILITY</u>
3 RECEIVE, CLEAR AND FILL REQUESTS FOR REPORTS	<u>LIMITED RESPONSIBILITY</u> LOAN SERVICE TO USER AGEN- CIES IN D.C. AREA	<u>MAJOR RESPONSIBILITY</u>
4 SCREEN AND SUBJECT CLASSIFY REPORTS	<u>ADVISORY RESPONSIBILITY</u>	<u>MAJOR RESPONSIBILITY</u>
5 DESCRIPTIVELY CATALOG REPORTS	<u>LIMITED RESPONSIBILITY</u> REVIEW FOR CARO COPY	<u>MAJOR RESPONSIBILITY</u>
6 PREPARE DRAFT TAB COPY		<u>SOLE RESPONSIBILITY</u>
7 PRINT AND DISTRIBUTE TAB		<u>SOLE RESPONSIBILITY</u>
8 SUBJECT CATALOG REPORTS	<u>SOLE RESPONSIBILITY</u>	
9 ABSTRACT REPORTS	<u>SOLE RESPONSIBILITY</u>	
10 PREPARE FINAL CATALOG CARD COPY	<u>SOLE RESPONSIBILITY</u>	
11 PRINT AND DISTRIBUTE CATALOG CARDS		<u>SOLE RESPONSIBILITY</u>
12 DEVELOP AND MAINTAIN DISTRIBUTION GUIDE	<u>ADVISORY RESPONSIBILITY</u>	<u>MAJOR RESPONSIBILITY</u>
13 DEVELOP AND MAINTAIN SUBJECT HEADING LIST	<u>MAJOR RESPONSIBILITY</u>	<u>ADVISORY RESPONSIBILITY</u>
14 OFFER GENERAL REFERENCE SERVICE ON REPORT MATERIAL	<u>MAJOR RESPONSIBILITY</u>	<u>LIMITED RESPONSIBILITY</u> IN DAYTON AREA
15 PREPARE REPORT BIBLIOGRAPHIES	<u>SOLE RESPONSIBILITY</u>	
16 PREPARE COMPREHENSIVE BIBLIOGRAPHIES	<u>SOLE RESPONSIBILITY</u>	
17 CARRY ON SPECIAL STUDIES	<u>MEDIUM RESPONSIBILITY</u>	<u>MEDIUM RESPONSIBILITY</u>
18 MAINTAIN FIELD-OF-INTEREST REGISTER AND SECURITY AND NEED-TO-KNOW APPROVAL RECORDS	<u>LIMITED RESPONSIBILITY</u> DUPLICATE FILE FOR ARC SERVICES	<u>MAJOR RESPONSIBILITY</u>

Figure 8

It is not necessary to wait until relocation and physical consolidation are completed before implementing portions of the recommended reorganization. A number of actions for organizational and functional improvements can be taken almost immediately; phasing of others leading up to eventual complete integration and reorganization can be started.

For example:

- a. Consolidate all planning, systems analysis and management engineering in the Operations Division to eliminate overlap and duplication.
- b. Centralize mail facility responsibility.
- c. Establish "Relations Staffs".
- d. Eliminate Document Service Center designation and establish in lieu thereof three coequal divisions: input, output (service), and reproduction.
- e. Establish function of screening input to determine quantitative reproduction requirements.
- f. Phased reduction of the reproduction organization through contractual services.
- g. Convert TAB to an Abstract Bulletin.

RECOMMENDATION No. 5

That ASTIA be reorganized as shown on page 43, and as discussed in the preceding pages 42 to 62.



### C. BIBLIOGRAPHY FUNCTIONS

One of the most important functions assigned to ASTIA under the current DOD Directive No. 5160.4 is that of providing auxiliary bibliographical services. These bibliographical services fall into two categories: report bibliographies and comprehensive bibliographies.

It is the bibliographical service function that suffers most from the limitation and withholding practices and the "exclusion of Restricted Data" requirement discussed in Section VIII, "Security".

#### Report Bibliographies

Report bibliographies are lists of bibliographical references to reports cataloged in the ASTIA collection only. This function is performed without charge for the requester on any subject by the Reference Section of the ASTIA Reference Center. In FY 1956, the Reference Section prepared 1528 report bibliographies. By directive and from a practical standpoint this is an ASTIA function and must remain with the ASTIA collection. In the proposed organization the report bibliography function is placed in the Search and Reference Branch of the Customer Service Division.

#### Comprehensive Bibliographies

The Library of Congress performs certain large-scale bibliographic and reference service on contract for the Department of Defense. This is generally referred to as the comprehensive bibliography function. These comprehensive bibliographies differ from the "report bibliographies" in that they are custom built to the requesters' specifications and may



include published as well as report literature. The term "specifications", in this case, covers considerably more than just the subject field. For example, depending upon the desires of the agency requesting it, any given bibliography may list titles only or may include highly informative abstracts of all entries; may cover any specified time span; may include any combination of published articles, books, and classified and unclassified report literature; may be indexed in any of a variety of ways; may be issued as a single "one-shot" compilation or in the form of periodic bulletins of some kind; may involve material of various security classifications, and may include almost any combination of languages. Because each comprehensive bibliography is thus designed to meet the specialized needs of one or a small group of agencies, they are prepared only on a specific transfer-of-funds basis, making this the only service related to ASTIA where the customer pays directly for the product.

Subject-wise, the comprehensive bibliography service is available in any of the scientific fields in which the Department of Defense supports research. The following representative list indicates something of the subject scope of the comprehensive bibliographies and literature surveys:

- Infrared
- Photo Interpretation
- Frostbite
- Polar Literature
- Thermal Properties of Metals
- Underwater Sound
- Aviation Medicine
- Effects of Noise on Man

When unclassified compilations appear to have general interest and the supporting military agency approves, copies of such bibliographies are offered for sale as Library publications.

The comprehensive bibliography function is performed in the ASTIA Reference Center by the Bibliography Section comprised of approximately twenty-five people. Approximately 10% of its costs have come out of ASTIA's contract with the Library. The remainder of its support is by direct transfer of funds from the requesting agency as mentioned earlier.

The survey group believes that the comprehensive bibliography function is one which Department of Defense agencies should have performed for them by contract with the Library of Congress. It is felt appropriate that this service should be requested of the Library of Congress because of its many reference media, collections, facility of access to other collections and reference media, and its skilled staff.

The Air Force, which is responsible for the operation of ASTIA, has adopted this view. In a memorandum to the Librarian of Congress, dated May 23, 1957, the Air Force asked the Librarian to continue to make available to the Department of Defense the comprehensive bibliography service on an individual contract basis with some possible sustaining financial support from ASTIA.

This service is quite beyond the reference resources of ASTIA and should be performed by ASTIA only as a last resort. If by some circumstance the function must be performed by the Department of Defense, the most logical assignment of the function would appear to be ASTIA.

## SECTION V

### SYSTEMS AND PROCEDURES

There is much recorded evidence to show that ASTIA has continuously improved production in its various functions. Also, the survey group observed a number of significant applications of the latest office equipment to the work of ASTIA. Systems have been refined. Standard forms have been developed and installed. ASTIA has done much to keep abreast of the potentials of automation and has done much to keep equipment manufacturers abreast of the requirements for automation in the documentation business. A number of seminars have been held on various aspects of improving systems for documentation.

However, more improvement in systems and procedures must still be accomplished by ASTIA so as to speed up its operations and increase the productive capacity of its resources. While ASTIA is aware of this requirement, it has not done all that it could have toward accomplishing it. It appears that insufficient attention has been given to the study of workflow and procedures and to their simplification and elimination of duplication. It was only in March of 1957, that ASTIA finally completed a detailed charting of workflow through the ASTIA organization. Its analysis and resultant procedural improvements remain to be accomplished. Also, the ASTIA staff has developed plans for broad systems improvements but appears to lack the aggressiveness and the capability required to carry these plans across the threshold to implementation.

An example of an area needing further study is that of the time required to fill requests. See Figure 9 on page 68.

In its approach to the systems and procedures area, the survey group did not attempt to make any detailed analyses. Rather the approach has been that of evaluating what the survey group considered to be the most significant systems proposals brought to its attention and making pertinent recommendations thereon.

#### Pre-Publication Cataloging

At present, ASTIA performs the cataloging and abstracting functions in accordance with the following general procedures:

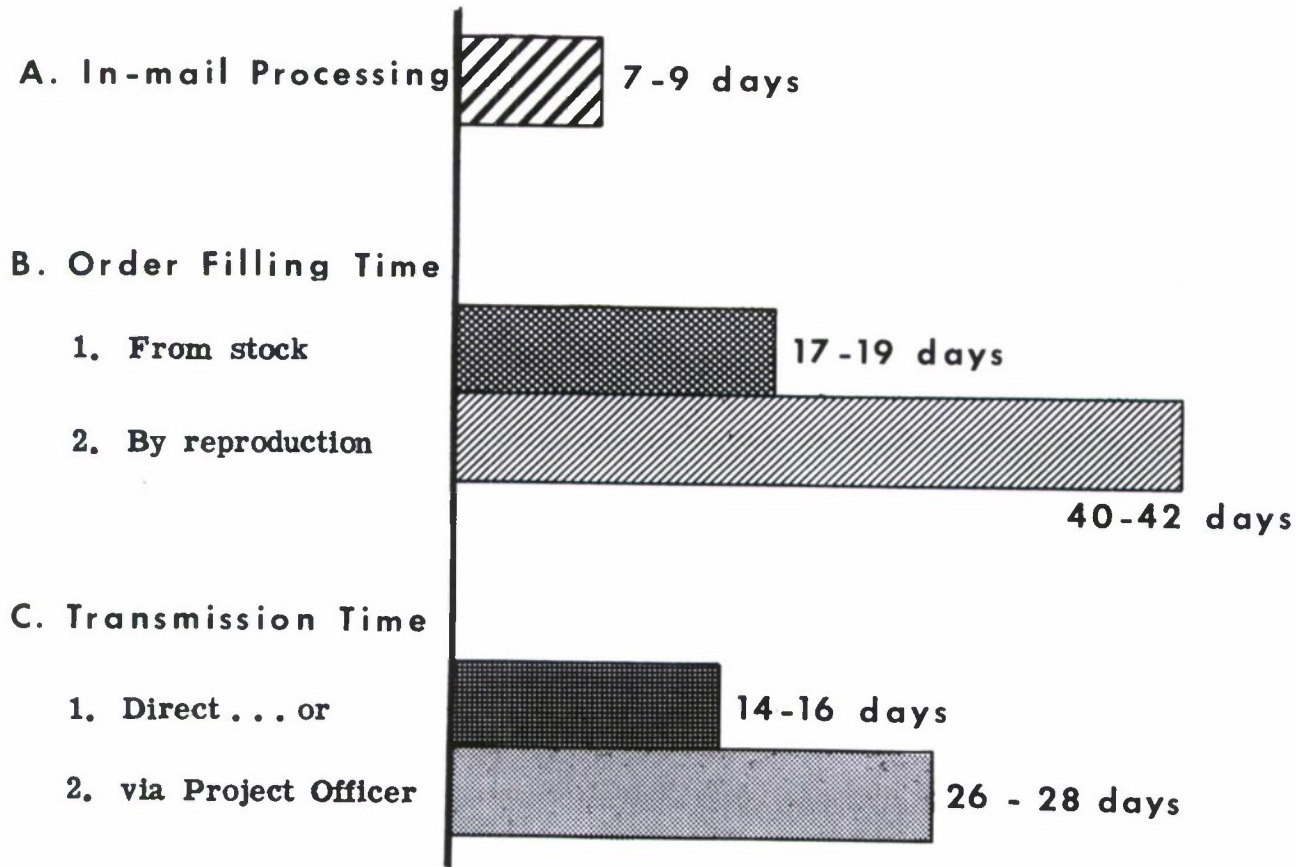
a. The Document Service Center in Dayton:

- (1) Checks input of documents for duplication of documents already in the ASTIA collection, and for appropriateness for inclusion in the ASTIA system.
- (2) Assigns AD numbers.
- (3) Does descriptive cataloging (includes such pertinent information as the name of the issuing agency, title and author of the document, the date, and the number of the contract under which the investigation was conducted. These items go on the catalog card.)
- (4) Assigns divisions and sections according to the ASTIA Distribution Guide.
- (5) Assigns uniterms.
- (6) Assigns distribution and/or reproduction limitations.
- (7) Types and proofreads descriptive catalog card "copy".



# ANALYSIS OF TIME REQUIRED TO FILL REQUESTS

AVERAGE NUMBER OF DAYS



---

## Total Time - A, B and C

1. From stock direct: 44 days  
or
2. Thru reproduction and via system: 79 days

Figure 9

# ANALYSIS OF TIME REQUIRED TO PROCESS DOCUMENTS

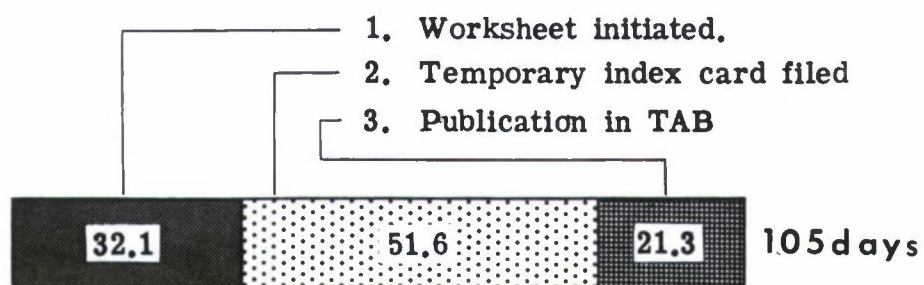
## AVERAGE NUMBER OF DAYS

A. Time from date document is published to date  
received at ASTIA

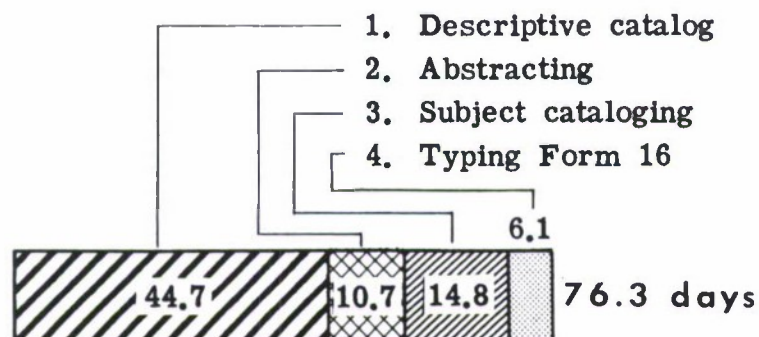
137 days



B. Time required for processing documents at  
DSC-Dayton



C. Time required for processing documents at  
ARC-Library of Congress



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**Total Time - B and C 181.3 days**

Figure 10

b. The ASTIA Reference Center in the Library of Congress:

- (1) Assigns subject headings.
- (2) Writes abstracts.
- (3) Types and proofreads final catalog card "copy."

The above functions are performed by approximately 36 personnel at the Document Service Center and 77 personnel at the ASTIA Reference Center, or a total of 113 personnel. About 50% of the descriptive cataloging done by the Document Service Center has some change or addition made to it by the ASTIA Reference Center. The time involved in the process, from beginning to a catalog card ready for printing generally varies from two months to six months and sometimes longer (see analyses on page 69). The procedure entails double typing operations and double proofreading operations. It also involves double reproduction or printing.

A descriptive catalog card is produced for recording the document and for providing an interim mechanism for its retrieval. Later a complete catalog card with subject headings and abstract is printed. When this second card is produced, the first card (the descriptive catalog card) is pulled from all reference and retrieval systems and the more complete second card is inserted into the system. This filing, pulling and filing again of cards consumes many manhours.

It is proposed that ASTIA's cataloging and abstracting functions be drastically reduced to the bare minimum by installing a system of pre-

publication cataloging. Under this system, the originators of documents would be responsible for furnishing all material for the catalog cards. ASTIA would pre-assign blocks of AD accession numbers to document originators. Originators would provide the descriptive and subject heading cataloging and the abstracts. They would indicate the divisions and sections and distribution and/or reproduction limitations. They might also be required to assign the uniterm.

Several activities such as the Centers of ARDC, the Air Proving Ground Command, the Rand Corporation, and the Operations Research Office of the Army are now voluntarily performing all or many of the above processes. Army Ordnance is initiating similar arrangements. ARDC is preparing a manual on the preparation of technical documental reports which will make it mandatory for reports published within ARDC to include catalog cards and abstracts. There is now a considerable body of precedents in successful pre-publication cataloging at NACA, WADC, NRL and some contractors.

It has been estimated that for every 100 copies of a report distributed in the initial instance, the report is cataloged between 50 and 60 times and abstracted or annotated 15 to 20 times by activities in DOD. This sizable duplication is not all necessary and can be reduced by setting standardized guidelines so that originators can do the cataloging and abstracting in a way that their efforts can be shared by ASTIA and by others. Many R&D activities who are now issuing abstract catalog cards with their reports have their own style. Hence their cards are admissable only to their own



catalogs. Some agency, then, should be recognized as the monitor, or coordinator, for standardization of such work as well as for other types of documentary format. This agency could also represent Department of Defense in working out acceptable bibliographic procedures with other government agencies such as AEC, NACA, OTS, etc. Some work has been done in this area but a recognized leader in Department of Defense is needed. ASTIA is the logical organization to be assigned this function.

Full implementation of the pre-publication cataloging system for ASTIA's input would require a DOD directive or a joint service regulation. (See Appendix E for suggested draft of directive.) This would make it mandatory for the Services and their contractors to do pre-publication cataloging, and would assign ASTIA the responsibility for providing pre-publication cataloging guidelines to the Services and their contractors.

Implementation of pre-publication cataloging would result in a number of benefits to ASTIA with no detrimental affect to the originators.

These benefits would be:

- a. Reduce significantly the time required to prepare and publish a catalog card complete with subject headings and abstract.
- b. Eliminate duplication of typing, proofreading, descriptive cataloging and filing.
- c. Eliminate one reproduction operation (i.e., descriptive catalog cards).
- d. Make it possible to print TAB from the completed catalog card

and thus assure that TAB is a timely abstract and reference media as well as a title announcement media.

e. Save approximately 44 manning spaces out of 56 spaces in the cataloging and abstracting functions in ASTIA Reference Center and approximately 41 spaces in associated publications functions in the Publications Section at ASTIA Reference Center, or a total of 85 spaces.

f. The early phasing out of the (1) requirement for contractual services for cataloging and abstracting and associated publication service, and (2) the requirement for most of the 100 spaces being requested to absorb the Library of Congress contract workload. For these functions alone, it is estimated that the cost of operations in ASTIA would be reduced by \$300,000.

In the implementation of the proposed pre-publication cataloging system, it is visualized that until the proposed DOD directive or joint service regulation became effective in the field and corollary guidance on standardization of cataloging became available from ASTIA to the field, the present general level of cataloging and abstracting manhours would have to be continued. ASTIA should take immediate steps to divert a few manning spaces in order to create a capability for developing and revising guidance on cataloging and abstracting. It is also visualized that a need will continue to exist for ASTIA to have a small capability in the cataloging and abstracting functions to monitor the quality of originators' work, to edit and make necessary corrections and to catalog and abstract technical documents

coming from sources outside the control of the Department of Defense. However, after the proposed system has been operational for a reasonable time, manpower requirements should again be reviewed with a view to further reduction.

RECOMMENDATION NO. 6

That the Department of Defense or the military departments jointly issue a directive (a) making it mandatory for the Services and Department of Defense contractors to do pre-publication cataloging and abstracting in technical and scientific reports; and (b) assigning responsibility to ASTIA to develop and provide to report originators guidance on cataloging and abstracting and other guidelines aimed at standardizing bibliographical processing methods.

RECOMMENDATION NO. 7

That ASTIA terminate cataloging and abstracting services as soon as possible after the pre-publications cataloging system is put into effect.

RECOMMENDATION NO. 8

That ASTIA's manpower requirements for cataloging and abstracting functions be re-evaluated four months after the pre-publications cataloging system has been put into effect.

Title Announcement Bulletin

The addition of technical documents to the ASTIA collection is announced through the medium of the Title Announcement Bulletin (TAB). The TAB is printed in four separate series: Unclassified, Confidential, Military Only, and NATO. The TAB is issued as quickly as possible after the initial document processing steps. Unclassified and Confidential TAB's

are issued approximately every two weeks. Since at least a week is involved in preparation and distribution, reports generally are announced within two to four weeks after they are received in ASTIA. The order of listing in the TAB is by AD number within separate subject divisions of the ASTIA Distribution Guide.

It appears that the majority of users try to use the Title Announcement Bulletin (TAB) as a reference medium even though ASTIA never intended it to serve this purpose. ASTIA has not included abstracts of reports in the TAB. This has had an adverse effect upon ASTIA's workload. Users seeing in the TAB only descriptive catalog information generate more requests for reports than would be the case if the users had the benefit of abstract information to guide them in selecting and requesting reports. This point is illustrated in the case of the Navy's announcement bulletin of some years ago -- the former Technical Information Pilot (TIP). For several months in its early life TIP announced reports only by title, plus the usual bits of preliminary cataloging information, very similar to the entries now appearing in TAB. Then it began to carry informative abstracts about each report. Almost immediately requests dropped, simply because users no longer had to get the actual report to decide whether or not it contained needed information. An abstract bulletin type of media is needed more than ever because of the discontinuance of providing catalog cards to the users and the urgent need to reduce the request-workload on ASTIA without detriment to the research and development program.



ASTIA has been aware of this situation for some time and has developed plans for revamping the TAB. It is believed that abstracts of selected reports should be published in the TAB. For reports of lesser interest or significance only the descriptive catalog information need be included. All should be arranged by subject heading rather than by "Distribution Guide" division. The TAB should be reproduced directly from the completed catalog cards. This would eliminate the present time-consuming steps of typing and proofreading. These steps of typing and proofreading would have been performed when the catalog cards were prepared.

The advantages of designing and producing the TAB as proposed would be:

- a. Serve as a reference media as well as an announcement media.
- b. Serve as an equitable substitute for discontinued catalog card service.
- c. Reduce the volume of requests upon ASTIA.
- d. Reduce very significantly the manhours required for preparation of TAB.

RECOMMENDATION No. 9

- (a) That abstracts be included in the TAB, and (b)  
That the TAB be reproduced from the Catalog Cards.

Use Earlier in R&D Cycle

It was the consensus of opinion of the persons interviewed by the survey group that ASTIA's services should be used to the greatest possible extent earlier in the R&D cycle. At present, ASTIA's services are being

utilized for the most part after an R&D contract has been awarded. It is believed that considerable savings in R&D time and money could be realized if reports and report bibliographies were utilized by project officers for their information as to the state of the art, and subsequently, by prospective bidders for preparation of their bids, and by the successful bidder as a ready-made literature search. It is believed that ASTIA's value to the Department of Defense would increase in direct ratio to the degree it was used in the project planning stage of the R&D cycle. A by-product of this early use of ASTIA services could well be a reduction in the total services requested for ASTIA.

Effectuating such a system is beyond the scope of ASTIA. It can and has provided services for the project-planning stage, and encouraged the military agencies to use such services. However, the full potential can be obtained only by the military departments themselves insisting that ASTIA's resources and services be utilized as a part of the R&D project-planning and contract pre-negotiation stage. It is believed that in order to make the system effective, the Office of the Assistant Secretary of Defense (R&E) should promulgate a policy encouraging (or requiring) the adoption of the system in the three military departments.

#### RECOMMENDATION No. 10

That the Office of the Assistant Secretary of Defense (R&E) promulgate policy and guidance on the utilization of ASTIA resources and services earlier (project-planning through contract awarding stage) in the R&D cycle.

## Automation

It is believed that ASTIA is not adequately mechanized to do the different jobs of indexing, cataloging, reference, announcement and release. ASTIA is by no means to be wholly blamed. The state-of-the-art in equipment has not advanced to a point where it is feasible to mechanize all of ASTIA's jobs. But this is an area to which ASTIA should give increased attention. In the past, mechanization has been an isolated effort used principally where unusually large backlogs have accumulated. This method of introducing a single piece of equipment with a minimum of disturbance to the total system has met with the least resistance. Its cost in manpower and dollar savings could be justified. Usually a net increase in production has resulted.

Over the years, a number of individual functions have been studied, both internally and by outside consultants. Where an available mechanized piece of equipment appeared advisable, the recommendation with appropriate justification has been submitted requesting the change. Throughout the agency a number of these recommendations have been approved, adopted, and proved extremely helpful in improving production. The importance of these improvements cannot be underestimated, especially in light of the tremendous growth rate, both in additions to the Central Depository and the demands made upon it.

Examples of mechanical improvements in ASTIA are the Elevator files which increase the number of searches for duplicate titles; punch tape addressograph to reduce address copy time; copy flow, a Xerox



process to increase the speed of reproducing full-size copies of documents from microfilm; Robot Cardex to increase the number of requests validated, etc. The larger the volume of work, the more necessary mechanization becomes. As separate functions are linked into common system, mechanization becomes more feasible until we approach what is known as Automatic Data Processing.

When considering Automatic Data Processing Systems (ADPS), it is necessary to study the entire system rather than a single function. Most of the present Automatic Data Processing Machines have been developed to do accounting, inventory, or solve complicated scientific problems. Very little effort has been expended by the major electronic companies to solve the documentation problems. It is for this reason that ASTIA has felt an obligation to draw attention to adapting documentation problems to data processing systems and equipment. Further, the unique mission of ASTIA makes it mandatory to keep current with the latest developments and experience in the field. This obligation has accounted for a substantial portion of ASTIA's document research program being channeled to keep abreast of the latest developments in the fields of cataloging systems, data processing equipment, photographic equipment, miniaturization processes and other documentation methods and techniques. Because of the nature and size of the agency a number of the problems are singular with ASTIA. However, there are other areas in which similar problems exist in both government and industry (Sears Roebuck in filling mail orders, Dunn and



Bradstreet in identification and verification of requests for information, and Patent Office in searching techniques).

There has been liaison with leading federal agencies (AEC, NACA, and the Bureau of Standards), private industry (DuPont, General Electric Co., Magnavox Corp.) and outstanding experts (Dr. C. Ross, WADC; Dr. H. Aiken, Harvard University; Dr. S. Alexander, Bureau of Standards). ASTIA representatives have attended conference and symposium discussions on cataloging systems, information retrieval, data processing, and related documentation problems. In response to numerous requests ASTIA has participated in the meetings and has either sponsored or co-sponsored a number of such conferences. One of the latest conferences sponsored by ASTIA was the government-industry conference on Multiple Aspect Searching for Information Retrieval.

From the research accomplished to date it is known that information retrieval or reference searching can be automated. However, appropriate electronic data processing systems must be designed to perform the documentation function. ASTIA, because of its size and unique mission, has the need for such specialized automated equipment. It plans to specify the requirements for research and development to meet the needs of documentation. Contacts have been established with the leading equipment manufacturers of the country who are working to a limited degree on the problem. However, ASTIA has the requirement to define its total problem more specifically in order to present a "blueprint" for the equipment specialists to work from.

## SECTION VI

### MANNING

#### Background

In December 1951, 200 civilian manning spaces were transferred from the former CADO to ASTIA. This constituted the initial manpower authorization for ASTIA. As a result of a survey of manpower requirements made by ASTIA, its manning was increased on April 18, 1952 from 200 to 300. Of these, 280 were graded and 20 were ungraded. During the process of analyzing and determining ASTIA's manpower needs, the decision was made to "demilitarize" the organization. This decision resulted in the eventual withdrawal of 49 military positions. ASTIA's net manpower increase then amounted to only 51 manning spaces. The table below shows the manning resources authorized to ASTIA since FY 1952.

Figure 11 - Summary of ASTIA Manning

<u>Fiscal Year</u>	<u>Authorized Ceiling (Year End)</u>	<u>Overtime Equivalent AF Civilian</u>	<u>Library of Congress</u>	<u>Total</u>
1953	230	16	126	372
1954	230	30	118	378
1955	265	27	134	426
1956	272	33	144	459
1957 a/	302	52	160	514
Feb 1957	272 b/	-- c/	160	432
1958 d/	272	--	160	432
	264 e/	--	160	424
	375 f/	--	---	375

a/ Programmed for FY 1957.

b/ Reduced 30 manning spaces by ARDC.

c/ All overtime discontinued because of lack of funds.

d/ Programmed for FY 1958.

e/ Proposed for FY 1958 by ARDC on April 29, 1957.

f/ Proposed for Dec. 31, 1957 by survey group. Increase of 103 AF spaces to absorb workload performed by Library of Congress, to effect organizational consolidation and to permit conversion to new system of operating.

ASTIA's manning increased by 172 from FY 1953 to the middle of FY 1957. Even so, the records show that ASTIA was able to keep from being swamped with the increasing request workload only by the excessive use of overtime. Productivity rates were being increased at the same time. The records contain many references to the requirements for additional manning to keep abreast of the mounting request workload and to what ASTIA considered the lag of manpower authorizations behind manpower requirements and the inadequacies of the manpower authorizations.

On October 9, 1956, 88 additional spaces were requested to meet urgent requirements existing at that time. This figure included a temporary overage of 30 spaces which had been allowed to ASTIA by ARDC to partially fulfill these requirements. This request was not approved.

#### Present

In January 1957, ARDC faced with manning limitations and expanded programs of high priority withdrew 31 spaces from ASTIA which included the previously authorized temporary increase of 30 spaces. Also, funds for all overtime (which was then at the rate of 38 manyears) was discontinued. ASTIA's manpower capability had in effect been reduced by 69 spaces. There then followed some curtailment of ASTIA services. During the period of this survey, a reduction-in-force plan was being carried out to bring personnel strength down to the new authorization (272 of which 4 are military). An ARDC programmed reduction of 8 more manning spaces (to 264) in FY 1958 was disapproved by Headquarters, USAF.



In addition to this difficult manpower situation, ASTIA is faced with the problem of absorbing the workload performed by the 160 personnel in the ASTIA Reference Center in the Library of Congress after December 31, 1957. It is necessary that ASTIA have additional manning so that it can make an orderly conversion in absorbing and in continuing to perform the Library of Congress workload until the new organization and systems recommended in this report become operative.

Attached as Appendix F is an analysis of the types of personnel employed by ASTIA, their average ages, length of service and salary.

#### Proposed

The survey group recommends that ASTIA be authorized 375 manning spaces. This figure (272 plus 103) is arrived at by the ability to effect an initial reduction of 57 spaces (out of the Library of Congress 160) at the time of the proposed consolidation.

#### RECOMMENDATION No. 11

That initially upon consolidation ASTIA be authorized 375 manning spaces.

#### Savings

At approximately the time this survey started, the equivalent of 514 spaces were required to perform the ASTIA mission. Presently with the reduction, ASTIA is performing its mission under conditions of curtailed services and mounting backlogs with 432 spaces. Initially, upon consolidation 375 manning spaces will be required. The survey group believes that progressively further reductions can be made in this authorization by adopting and installing the management improvements recommended



in this report. A recapitulation of some of the ways discussed in this report by which savings can be achieved is shown below:

- a. Consolidation.
- b. Reorganization.
- c. Pre-publication cataloging and abstracting.
- d. Abstract-type of TAB.
- e. Additional mechanization of retrieval function and others.
- f. Better plant lay-out.
- g. Contract reproduction.
- h. Use of ASTIA services earlier in the R&D cycle.
- i. Service charge.
- j. Operational liaison.
- k. Common and cross-servicing in the Branch Offices in the field.

Some of the proposals of this report will require additional manning, such as:

- a. Additional emphasis on systems and procedural improvements, and cataloging guidance proposed for the Plans and Analysis Branch.
- b. Determination (in the input process) of quantitative requirements.
- c. Pricing, billing and accounting under the service charge system.
- d. "Relations offices".

However, these additional requirements are more than outweighed by the opportunity and means for savings listed in the paragraph above, so that the net savings in manning should be very substantial.

RECOMMENDATION No. 12

That the manning requirements for ASTIA be re-evaluated in approximately one year (July 1958) with a view to further reducing the manpower authorizations.

## SECTION VII

### FINANCING

#### Background

Ever since its beginning, ASTIA has been faced with money problems. Initially ASTIA was jointly funded and there were problems as to the level of support each Service was to be required to contribute. Continuous Re-programming of funds to take care of ASTIA's mounting requirements has been necessary. Procedures and guidelines for budget estimating and financial planning have never been clear.

During the period from July 1, 1951 to January 1, 1952, ASTIA funds, as such, were nonexistent. The former Central Air Documents Office (CADO) was funded partly by the Air Force through both the Air Materiel Command and the Air Research and Development Command (ARDC), and partly by the Department of the Army. Navy support of CADO was limited to the loan of approximately 20 Navy civilian allocations for use by CADO and the loan of a few selected commissioned officers for short tours of duty with the organization. These civilian allocations were withdrawn during late FY 1951.

The Charter for Air Force Management Fund Project Account No. 5, providing for ASTIA, became effective on January 1, 1952, coincident with the transfer of the former CADO personnel and facilities to ASTIA. As of that date, the Director of ASTIA was provided with the unobligated portion of Army and Air Force funds previously programmed for CADO. Thereafter, ASTIA's funding program was subject to the functional control of the Air Force Comptroller with respect to budgeting,

financing and accounting procedures, as well as reporting and audit review.

Budgetary services for ASTIA were henceforth provided by the Deputy for Comptroller, Headquarters, ARDC, in keeping with the active management responsibility of that Command. During Fiscal Years 1952 and 1953, there was no transfer of Navy Department funds in direct support of ASTIA. Instead, the Office of Naval Research (ONR) continued its contract with the Library of Congress to provide for the Navy Research Section (NRS) of the Technical Information Division.

Throughout FY 1953, there existed considerable confusion regarding the Agency's FY 1953 financial level of operations as well as the method of funding and extent of participation by each of the three military departments. The instability of the Agency's FY 1953 financial program necessitated constant compilation, and revision and reconciliation of operating data. It remained unresolved until the tenth month of the fiscal year.

On January 8, 1953, the Assistant Secretary of Defense (Comptroller) directed that during FY 1954 ASTIA would be supported by equal contributions from the Army, Navy and Air Force in the amount of \$2,000,000 with the Departments of the Army and Navy each contributing \$667,000. Subsequently, the Comptroller, USAF, felt that this figure might be beyond the financial capabilities of the three military departments and endeavored to develop a FY 1954 financial plan at \$1,500,000. After considerable study, the ASTIA Advisory Council concluded that the reduction would result in a serious loss in ASTIA's effectiveness. Following a briefing given by the ASTIA staff to the RDB Policy Council, the Assistant



Summary of Financial Requirements

Fiscal Year	Budget Estimate	Financial Plan	Obligated (Includes Library of Congress Contract)	Library of Congress Contract
FY 1952	\$1,635,389	\$1,738,096	\$1,738,096	\$574,596
FY 1953	\$2,677,398	\$1,693,000 (A-\$500,000) (N-\$500,000) (AF-\$693,000)		
		\$1,320,000*	\$1,955,721	\$655,385
		* Final figure - remained unsolved until 10th month of Fiscal Year		
FY 1954	\$2,783,556* \$2,000,000** * ASTIA ** OSD Directive A-\$667,000 N-\$667,000 AF-\$667,000	\$2,000,000	\$1,932,543	\$661,097
FY 1955	\$2,452,000* \$2,000,000** * ASTIA ** ARDC	\$2,007,945	\$2,175,506	\$699,000
FY 1956	\$2,259,155	\$2,395,362	\$2,447,916* * 12.8% increase over FY 55	\$871,060
FY 1957	\$2,349,607	\$2,992,325* \$2,733,600** * initially ** reduced Feb. 18, 57		\$781,168
FY 1958	\$2,500,000* \$3,016,000** * OSD budget guidance ** AF submitted	\$2,471,000		\$681,295

Figure 12

Secretary of Defense (Comptroller) issued a memorandum for the Comptrollers of the three military departments reaffirming the Defense Comptroller's January 8, 1954 decision setting ASTIA's FY 1954 financial level at \$2,000,000.

Beginning with FY 1955, the joint funding of ASTIA was discontinued. ASTIA was funded through the use of Air Force Research and Development Project 600 funds. The guidance issued set a ceiling of \$2,000,000 for FY 1955, with the FY 1956 budget to be prepared on the basis of actual requirements. ASTIA then submitted a FY 1956 budget estimate reflecting requirements for \$2,259,155. The table on page 88 shows by fiscal years the budget estimate, financial plan and amount obligated.

In this background discussion, it may be interesting to recall that the McCormack Committee at about this time (March - July, 1954) recommended that the Office of the Secretary of Defense should establish for the managing agent "an over-ceiling funding program for ASTIA". By now, the concept of a \$2,000,000 over-ceiling figure for ASTIA had pretty much become the accepted thinking in peoples' minds.

#### Emergency Funds

In July 1956 (i. e. , the beginning of FY 1957) it was felt by Air Force DCS/Development that the Air Force was financially unable to continue to subsidize ASTIA beyond the \$2,000,000 over-ceiling amount. The requirements for Air Force R&D dollars to finance critical and high priority research and development projects were such that it was felt that none of these funds could be programmed for ASTIA. Consequently,

the Air Force requested of the Defense Comptroller \$992,000 from the Defense R&D Emergency Fund to make up the difference necessary to carry out the \$2,992,325 FY 1957 financial plan. The amount requested was later reduced to \$788,000. The former Assistant Secretary of Defense (R&D) approved the request to use Defense R&D Emergency Funds for ASTIA and forwarded it to the Defense Comptroller who, because of several unanswered questions, withheld further action pending a survey.

As of April 15, 1957, the Air Force had authorized \$733,600 over the basic amount of \$2,000,000 for ASTIA. The Air Force appears quite concerned over the present and probable continued utilization of the reduced Air Force R&D 600 funds for ASTIA. The Air Force believes that one possible solution to ASTIA financial difficulties is to receive recognition that the cost of operating ASTIA has increased over the years and that \$2,000,000 is no longer realistic and the over-ceiling figure should be raised to \$3,000,000. There has been some relief in this direction. The Defense budget guidance for FY 1958 provided for a \$2,500,000 over-ceiling figure. The Air Force's budget submitted in this connection was \$2,471,000.

#### Increased Workload

As ASTIA's services have become better known to the Defense R&D community and as its services have improved, there has been an ever increasing demand for services. The number of items requested has increased by 162% from FY 1953 to the end of FY 1956. An increase

of about 100,000 items or 30% was anticipated for FY 1957. There does not appear to be any leveling off plateau on the horizon for the user side of the ASTIA function. On the other hand, the input of technical documents cataloged has become fairly stabilized at approximately 34,000 new titles per year.

In FY 1956, input absorbed 30% of the manpower and 29% of the dollars. Output absorbed 54% of the manpower and 57% of the dollars. Command and Staff accounted for 6% of the manpower and dollars, and various support functions require 10% of the manpower and 8% of the dollars.

#### Curtailment of Services

On October 9, 1956, ASTIA requested 88 additional spaces to meet urgent requirements existing at that time. This figure included an overage of 30 spaces which has been allowed to ASTIA to partially fill this requirement. The request was not approved. In January 1957, ARDC, faced with manning limitations and expanded programs of high priority, had to withdraw the 30 "overage" spaces. A proportionate financial reduction was effected. Also, funds for overtime at the rate of 38 manyears was discontinued.

In February 1957, ASTIA developed and began installing a plan for curtailing some of its services. The automatic mass distribution of catalog cards was eliminated. A system was established whereby each request is screened for the following:



- a. If available in stock, a full-size document is furnished.
- b. A micro-card of the document is furnished in lieu of a. above.
- c. If neither a. nor b. is available, a copy of the document is reproduced to fill the request.

The curtailment plan will also limit document request services to documents which are included in the ASTIA system. Furthermore, the plan called for restricting, if necessary, the kinds of documents which would be cataloged into the central depository. This may include those documents which require excessive processing and may extend to include documents which do not contain author produced abstracts and catalog cards. The survey group does not consider the latter a wise course. It believes that under any circumstance, the integrity of the R&D collection must be maintained, not further reduced in scope.

After having taken steps to eliminate automatic distribution of catalog cards, ASTIA's curtailment plans were halted at the direction of the former Deputy Assistant Secretary of Defense (R&D) and Headquarters, USAF. The survey group was appointed at this point and instructed to review the current operation and internal management of ASTIA and make recommendations for its improvement.

#### Hidden Costs

The financial picture of ASTIA is not complete without taking into account the so-called hidden costs of ASTIA. The situation is a fairly normal one where a tenant activity is dependent on a host installation for various logistic and administrative support. The host installation in this

instance is Wright Patterson Air Force Base. The estimated hidden costs for FY 1956 are listed below:

Estimated ASTIA "Hidden Costs" for FY 1956

Military Pay and Allowances		\$ 47,000
Furnished by GSA:		201,700
Rental of Leased Space	\$121,500	
Janitorial Service	32,200	
Elevator Service	18,300	
Electricity (other than normal lighting)	11,600	
Repairs and Maintenance	11,400	
Supplies, Plumbing and General Expense	6,700	
Furnished by Host Installation:		309,200
Communication Services (incl \$192,000 1st class mail)	216,000	
Transportation (incl \$48,000 parcel post)	50,000	
Office Furniture (not reimbursable)	21,000	
Payroll and Finance	7,500	
Property Accountability and Service Stock Functions	6,000	
Medical Services	2,500	
Local Purchase and Contracting	2,000	
Vehicles	1,500	
Other	2,700	
Furnished by WADC:		13,725
Personnel Services	9,450	
Accounting Services	3,260	
Local Purchase, Contracting and Statistical	1,015	
		<hr/>
Total Costs		\$571,625

The total cost of ASTIA during FY 1957 was close to \$3,500,000. The costs of many of these services are too difficult to determine precisely and too small to warrant reimbursement. However, it is significant to point out in this discussion that ASTIA is now being required to pay for some of the heretofore hidden costs out of its own budget. In FY's 1957 and 1958,

ASTIA will pay approximately \$264,000 for Local Purchase and General Stock Supply Fund Type items of supply and equipment for which reimbursement was not required in FY 1956.

#### Proposed Funding

Requests for ASTIA services are currently being met on a give-away basis. The introduction of a nominal fee system or service charge to the users for such services would put ASTIA on a more business-like basis. A service charge would provide a much needed check in a system of checks and balances. It should reduce unnecessary requests and should help to reduce the present curve of increasing demands. As demand and income fluctuate, the resources put into the service functions could be adjusted accordingly.

The collection of scientific and technical documents produced by Department of Defense Research and Development Agencies and their contractors, the maintenance of the collection, and the production (or guidance and review of production) of catalogs and other appropriate retrieval media, are fundamental. These -- the input functions -- are basic essentials of an integrated Research and Development Technical Documents collection and should be supported directly by appropriated funds.

The basic purpose of the ASTIA documents collection is to further the Defense Research and Development effort and the National Security by providing a means for effecting greater interchange of existing scientific and technical knowledge between DOD R&D agencies

and their contractors. This is accomplished by furnishing copies of technical documents in the collection to DOD R&D agencies and their contractors as requested by them. The announcement of document acquisitions; the handling, screening and filling of requests for documents; and the shipping and accounting of documents supplied to the users are integral parts of the ASTIA Service. These -- the output functions -- should be paid for, at least partially, by the users of the service, and the proceeds from such payments should, to the extent possible, be applied to the cost of ASTIA operations.

Price lists established for such a fee system should provide for nominal charges which are relative to the services involved. While the service charges should reflect a proportionate share of ASTIA overhead costs, no attempt should be made to establish an absolute cost accounting system in order to recoup actual costs of operations. The service charge should be viewed as a device to be used primarily to control workload even though it will serve as one of the methods of funding ASTIA's operations.

All users of the ASTIA collection, except possibly NATO and other similar allied nations, should be charged for ASTIA services in accordance with the established Price List. Special arrangements should be worked out for those users which are allied nations such as NATO. It may be that reciprocal exchanges would be more appropriate.



Information available at ASTIA indicates that of the 383,647 reports released to users during 1956, approximately 30%, or 115,094 reports, were to military agencies and 70%, or 268,553 reports, were to military contractors. The estimated average cost of supplying these reports to the users by ASTIA was \$1.17 for full-size copies sent to ASTIA by the originator; \$1.15 for stockpiled micro-cards; and \$3.12 for full-size copies reproduced by ASTIA. These cost estimates include processing the request and reproducing and handling the reports for release.

A fee or service charge system for unclassified technical documents supplied to industry upon request is currently being utilized by the Office of Technical Services in the Department of Commerce. Appendix G contains an example of the price list established by that Office and the Public Law which authorizes such an arrangement.

#### RECOMMENDATION No. 13

That all users of ASTIA services, except possibly the NATO and other similar allied nations:

- a. be required to pay fees in the form of service charges for services rendered to them by ASTIA commencing July 1, 1958;
- b. be notified of the change to a service charge system no later than April 1, 1958.

#### RECOMMENDATION No. 14

That the Department of the Air Force develop in accordance with the above objectives and submit to the Assistant Secretary of Defense (COMP) for

approval by February 1, 1958, a plan which will provide:

- a. The method of funding ASTIA operations from a combination of appropriated funds and fees collected from users as charges for services rendered.
- b. For the establishment and maintenance by ASTIA of a list of fees and service charges to be paid by users for services rendered by ASTIA.
- c. A system for the accounting, periodic billing, and collection of fees and service charges owed ASTIA by users for services rendered and for the receipt, accounting and deposit by ASTIA of monies received simultaneously with requests for services from the users.

## SECTION VIII

### SECURITY

The ASTIA collection of R&D technical documents includes material which is Unclassified, Confidential and Secret. Documents which are classified as Top Secret and "Restricted Data" are excluded from the collection. Also, documents containing cryptographic and proprietary information are excluded as are several other types of R&D data and information. It can be readily seen that even the exclusions do not erase the need for an effective and adequate security system to protect the acquisition, storage, handling, transmission and accounting of classified R&D technical documents into the ASTIA collection and subsequently from ASTIA to both the military and non-military users and return.

The present security procedures, however, constitute a serious problem area affecting both the input and output of ASTIA's operation. It creates much additional work and slows down services.

#### Limitations

On the input or documentation side, certain categories and classifications of information are excluded from the ASTIA collection. There are ten specific exclusion categories prescribed by AFR 205-43 (AR 380-10; OPNAVINST 5510.17A). It is believed that most of the exclusions are beneficial to the ASTIA collection in that it eliminates processing into the collection a mass of non-research and development type of material.

Two exceptions are the exclusions of Top Secret and "Restricted

Data". It was the consensus of opinion of the research and development people with whom the survey group discussed the problem that there is not much research and development information in Top Secret documents that is not also found in Secret documents. The benefits to be derived from collecting and disseminating Top Secret information therefore would not be commensurate with the added security problems involved in handling it. On the other hand, it was felt that the military aspects of nuclear energy are covering an increasingly large area in the research and development program. It was felt that the central depository and its bibliographical service are far from complete without this category of information. The survey group believes that consideration should be given to removing "Restricted Data" from the exclusion category at a later time when ASTIA's more pressing problems are resolved.

There is another kind of "limitation" wherein action for improvement can be given increased attention and emphasis. That is in connection with the limitations which the military departments place on release of documents to ASTIA. These limitations operate in two ways:

- a. Originating departments may, in their judgment, decide that a certain report should not be given to the ASTIA collection; or
- b. The originating department may permit the report to go into the ASTIA collection, but not permit ASTIA to release it to a user without first obtaining the approval of the cognizant military department.

One of the most important ASTIA functions is report bibliography



service. Bibliographic report service provides the user with the knowledge of reports which are specifically related to his problem. It is a function that no other agency is in a position to perform. The service is based on ASTIA's entire collection of technical information. But the withholding of reports from ASTIA mentioned in a. above leaves gaps in coverage, gaps that penetrate many fields and require a costlier operation. Even the existence of reports is not revealed when background information is sought by the Department of Defense research and development family, attempting to determine state-of-the-art knowledge in certain subject areas. Worse, the inquiring office may not know how nearly complete a reference search made by ASTIA may be -- or where it might go to find missing information. Offices become involved in searches costly in time and money.

The survey group agrees with the need for controlling the reports, but believes that there may well be duplication of effort in research and development because the control as applied to reports is so strict in some instances that even knowledge of their existence is withheld. The extent of control over actual reports must be decided by appropriate authority and fully adhered to by all who have access to the information involved. On the other hand, if the information is not cataloged and listed in connection with related reference problems, no user with or without the necessary justification for access would ever request the reports because there would be no knowledge of their existence. The important consideration here is that ASTIA's reference service should be complete on any given subject and available to properly cleared activities having a "need to know".

An appreciable number of reports in the ASTIA collection are subject to the form of limitation mentioned in b. above. ASTIA made a spot check some two years ago which revealed that approximately 3.5% of unclassified reports, 10% of Confidential reports and 35% of the Secret reports were subject to Service-imposed limitations. Since the material in ASTIA's collection breaks down approximately as follows, 50% unclassified, 40% Confidential and 10% Secret, the percentage of the total collection which is subject to these limitations becomes:

Unclassified	3.5% x 50%	= 1.75%
Confidential	10% x 40%	= 4.0%
Secret	35% x 10%	= 3.5%
		<u>9.5%</u>

The Service-imposed limitations create an added workload for ASTIA. Additional input-processing steps are involved. On the output side, the user is supposed to request the report directly from the controlling agency. However, in a great number of instances the request erroneously comes to ASTIA. ASTIA has to take the additional steps of either returning the request to the user with instructions to order direct or forwarding the request to the cognizant military department for release approval. The controlling organization may indicate its approval and send the request to ASTIA authorizing the release of the report to the requestor or the organization may forward directly to the requestor a copy of the report.

These limitations create additional work for the military departments. The requestor may correctly direct his request to the cognizant

military project officer stating his need for the report. The military project officer must, in turn, indorse the request to the organization which controls the report giving security clearance information and justification of the requestor's need for the report.

The survey group believes that continuous attention and emphasis should be directed toward reducing these limitations (those withheld from the ASTIA collection and those whose release requires prior approval). Reducing limitations to the barest minimum has the following advantages:

- a. Renders ASTIA's collection more complete.
- b. Broadens the coverage and makes more complete ASTIA's report bibliographical service.
- c. Eliminates duplication of research and development effort.
- d. Eliminates costly and time-consuming searches.
- e. Reduces workload at ASTIA and in the military departments.
- f. Speeds up services.

It is believed the objective of reducing limitations without impairing necessary security can be attained in several ways:

- a. Inform and educate originators of ASTIA's mission, facilities and methods of operation. The proposed Contributor Relations Office can accomplish much along these lines.
- b. Use the Operational Liaison channels and contacts to explain problems and to gain acceptance for increased removal of limitations.
- c. Refer programs, criteria and guidelines designed to reduce limitations to the proposed ASTIA Advisory Council for tri-service coor-

dination, policy decision and implementation.

d. Establish uniform classes of "limitation", e. g. , "military only"; "one service only".

RECOMMENDATION No. 15

That the military departments give additional attention and emphasis to the removal of "limitations" with the objectives of increasing the usefulness of the ASTIA collection to the Department of Defense research and development program effort and effecting economies in ASTIA and in the military departments, consistent with effective security.

Via System

To obtain ASTIA's services, a prime contractor executes a Field of Interest Register (FOIR - ASTIA Form 20) for each contract for which classified ASTIA services are desired. (Citing of a current contract is sufficient to obtain unclassified information). The contractor indicates his fields of interest on the FOIR by selecting the pertinent divisions and sections according to the ASTIA Distribution Guide. (The Guide is designed to facilitate the release of documentary material on a "need-to-know" basis. It is a breakdown of all the fields of science and technology into "divisions" of major subject fields of interest, and each division is further divided into "sections" of more limited subject interest. Explanatory notes giving the scope of the material covered are provided.) The FOIR is signed by a responsible official of the contractor and forwarded to the cognizant military project office or officer to be certified for "need-to-know", and transmittal to ASTIA.



Concurrently, the contractor completes a Security Register (ASTIA Form 62) pertaining to the degree of personnel and facility clearance and submits it through the military agency responsible for such clearances for certification to ASTIA.

To obtain ASTIA's services, a subcontractor completes a Field of Interest Register (FOIR - ASTIA Form 20) for each contract for which classified ASTIA services are desired, indicating pertinent divisions and sections. However, to be eligible to receive ASTIA services, the subcontractor has to obtain the approval of the prime contractor who signifies this approval by signing the register. The prime contractor then forwards the register to the cognizant military agency for certification.

When a properly approved Field of Interest Register is received by ASTIA, the agency is established to receive ASTIA services. If a Security Register has not been received by ASTIA, the user is established to receive "Unclassified" material only. When a Security Register is received, security clearance is established in accordance with the register.

In many cases, different interpretations are placed upon different regulations by the security agencies of the separate services. The result is a time-consuming, complicated and, in many instances, confusing method by which the contractor becomes established for ASTIA services. Quite often it takes as long as three months for a new contractor to become established even though his facility and his personnel have been cleared by the cognizant military agency prior to the award of his contract. Under

these conditions it has been impossible for ASTIA to develop a system, or method, which will enable a short-term contractor to qualify for ASTIA services prior to the expiration of his contract.

The value of research findings to date on any given subject lies in its immediate availability to the particular project. This was emphasized by the Deputy Secretary of Defense in his letter of October 4, 1956 to the industry on the subject of reducing the time spent in the cycle from concept to inventory of aircraft weapon systems in which he stated, in part, as follows:

"Services rendered industry in providing scientific and technical information can no doubt also be accelerated. It is most necessary that the technical data, reports and findings resulting from research being supported by the Government be furnished contractors in time for them to be used in the development of the systems on which they are working."

Under regulations, ASTIA must send all Secret material via the cognizant military project officer for a further screening against a "need-to-know", even though this same office has initially cleared the contractor and his facility and certified his field of interest. This causes a considerable delay in forwarding material to the user since most offices are not equipped to handle the workload. This is a source of irritation for the user and one reason ASTIA is criticized for delays in obtaining documents.

The survey group took random samplings of the time required for reports to go by the via system to the contractors of Army, Navy and Air Force. These samplings are shown on page 106. For a Secret report to reach the contractor via the project officer in the Army, it took

RANDOM SAMPLING OF TIME REQUIRED TO TRANSMIT DOCUMENTS  
BY "VIA" THE PROJECT OFFICER

User Code	ASTIA Number	Date ASTIA Forwarded to Project Officer	Date Re- ceived by Project Officer	Date Re- ceived by Contractor	No. of days in Transit
<u>A. Department of the Army</u>					
3484	AD 100314	Feb 15, 57	Mar 7, 57	Mar 19, 57	32
	AD 100704	Mar 14, 57	Mar 21, 57	Mar 28, 57	14
	AD 100734	Feb 27, 57	Mar 9, 57	Mar 20, 57	10
	AD 101073	Feb 27, 57	Mar 9, 57	Mar 20, 57	21
	AD 101075	Feb 4, 57	Feb 11, 57	Feb 22, 57	18
	AD 101341	Feb 27, 57	Mar 9, 57	Mar 20, 57	21
	AD 101746	Mar 19, 57	Mar 23, 57	Apr 2, 57	12
	AD 102017	Mar 7, 57	Mar 14, 57	Mar 20, 57	13
	AD 102669	Feb 5, 57	Mar 12, 57	Mar 20, 57	43
	AD 102669	Feb 6, 57	Feb 11, 57	Feb 22, 57	16
<u>B. Department of the Navy</u>					
31	AD 86687	Apr 9, 57	Apr 17, 57	Apr 17, 57	8
	AD 106417	Apr 8, 57	Apr 17, 57	Apr 19, 57	11
4569	AD 92004	Feb 18, 57	Mar 14, 57	Mar 14, 57	24
5774	AD 99303	Feb 25, 57	Mar 25, 57	Mar 25, 57	28
5911	ATI-54521	Feb 12, 57	Feb 26, 57	Mar 14, 57	30
5131	AD 72011	Feb 14, 57	Feb 28, 57	Feb 28, 57	14
4590	ATI-178664	Feb 20, 57	Mar 11, 57	Apr 2, 57	41
	AD 105489	Feb 15, 57	Mar 18, 57	Apr 2, 57	46
810	AD 98340	Feb 28, 57	Mar 7, 57	Mar 7, 57	7
5558	AD 118	Mar 21, 57	Mar 27, 57	Apr 1, 57	10
<u>C. Department of the Air Force</u>					
5250	AD 48196	Mar 28, 57	Apr 3, 57	Apr 22, 57	25
	AD 57041	Mar 20, 57	Mar 26, 57	Apr 1, 57	12
	AD 67937	Feb 21, 57	Mar 8, 57	Mar 15, 57	22
	AD 96468	Mar 20, 57	Mar 26, 57	Apr 1, 57	12
	AD 103627	Jan 28, 57	Feb 14, 57	Feb 25, 57	28
	AD 104802	Feb 25, 57	Mar 6, 57	Mar 13, 57	16
	AD 107460	Feb 14, 57	Mar 1, 57	Mar 11, 57	25
	AD 112516	Mar 20, 57	Mar 26, 57	Apr 8, 57	19
5394	AD 93359	Feb 20, 57	Mar 8, 57	Apr 2, 57	41
	AD 93457	Feb 20, 57	Mar 11, 57	Apr 17, 57	55
	AD 94715	Feb 20, 57	Mar 8, 57	Apr 2, 57	41
	AD 97787	Mar 25, 57	Apr 2, 57	Apr 22, 57	28

Figure 13



from 10 to 43 days; in the Navy, from 7 to 46 days; in the Air Force, from 12 to 55 days. The Boeing Airplane Company, in a letter to ARDC on January 22, 1957, stated:

"During the past year a total of approximately 3000 documents have been requested from ASTIA by Boeing Airplane Company. Records indicate the average delay in receiving documents requested is 43 days for unclassified material, 68 days for confidential material, and 114 days for secret material."

The survey group believes that the via system should be abolished because of the workload involved for the project officer, the comparatively small amount of rejects for need-to-know reasons, and because of the delays in transmittal of reports. The survey group is of the opinion that the via system does not actually provide in many instances the second need-to-know check intended. It should be possible to devise a better system -- providing effective security and at the same time reducing the manhour factor and the delay-in-route factor.

#### RECOMMENDATION No. 16

That an ad hoc group be appointed to study security procedures for the release of classified documents to ASTIA users and recommend improvements which will reduce manhours and time required to process classified documents to certified users. The group should be composed of security representatives of the OSD and each of the military departments.



## SECTION IX

### SUMMARY OF RECOMMENDATIONS

The following is a summary of recommendations made in Sections I through VIII of this report. The recommendations are restated in this Section for convenience of reference:

#### RECOMMENDATION NO. 1

- a. That the ASTIA Policy Council be abolished.
- b. That an ASTIA Advisory Council be established consisting of R&D members to be designated by the Assistant Secretary of Defense (R&E) and the three Secretaries of the military departments respectively, to advise the Air Force executive agent at the headquarters level on the management of ASTIA,
- c. That the ASTIA Advisory Council be chaired by the Air Force member.
- d. That the DOD directive be appropriately revised to include b. and c. above. (See recommended revision, Appendix C)

#### RECOMMENDATION NO. 2

- a. That properly qualified personnel be designated by each military department to perform operational liaison with ASTIA.
- b. That the Director of ASTIA be authorized and required to utilize operational liaison channels with the Army, Navy and Air Force.

#### RECOMMENDATION NO. 3

That the organizational elements now separated geographically be consolidated at one location by not later than January 1, 1958.

#### RECOMMENDATION NO. 4

That the Deputy Director be a civilian rather than a military position.

#### RECOMMENDATION NO. 5

That ASTIA be reorganized as shown in Figure 5 on page 43 of this report, and as discussed in the preceding pages 42 to 62.

#### RECOMMENDATION NO. 6

That the Department of Defense or the military departments jointly issue a directive:

- a. Making it mandatory for the Services and Department of Defense contractors to do pre-publication cataloging and abstracting in technical and scientific reports.
- b. Assigning responsibility to ASTIA to develop and provide to report originators guidance on cataloging and abstracting and other guidelines aimed at standardizing bibliographical processing methods.

#### RECOMMENDATION NO. 7

That ASTIA terminate cataloging and abstracting services as soon as possible after the pre-publications cataloging system is put into effect.

#### RECOMMENDATION NO. 8

That ASTIA's manpower requirements for cataloging and abstracting functions be re-evaluated four months after the pre-publications cataloging system has been put into effect.

#### RECOMMENDATION NO. 9

- a. That abstracts be included in the TAB.
- b. That the TAB be reproduced from the Catalog Cards.

#### RECOMMENDATION NO. 10

That the Office of the Assistant Secretary of Defense (R&E) promulgate policy and guidance on the utilization of ASTIA resources and services earlier (project-planning through contract awarding stage) in the R&D cycle.

#### RECOMMENDATION NO. 11

That initially upon consolidation ASTIA be authorized 375 manning spaces.

#### RECOMMENDATION NO. 12

That the manning requirements for ASTIA be re-evaluated in approximately one year (July 1958) with a view to further reducing the manpower authorizations.

#### RECOMMENDATION NO. 13

That all users of ASTIA services, except possibly the NATO and other similar allied nations:

- a. be required to pay fees in the form of service charges for services rendered to them by ASTIA commencing July 1, 1958;
- b. be notified of the change to a service charge system no later than April 1, 1958.

#### RECOMMENDATION NO. 14

That the Department of the Air Force develop in accordance with the objectives stated in Section VII of this report, and submit to the Assistant Secretary of Defense (COMP) for approval by February 1, 1958, a plan which will provide:

- a. The method of funding ASTIA operations from a combination of appropriated funds and fees collected from users as charges for services rendered.

- b. For the establishment and maintenance by ASTIA of a list of fees and service charges to be paid by users for services rendered by ASTIA.
- c. A system for the accounting, periodic billing, and collection of fees and service charges owed ASTIA by users for services rendered and for the receipt, accounting and deposit by ASTIA of monies received simultaneously with requests for services from the users.

RECOMMENDATION NO. 15

That the military departments give additional attention and emphasis to the removal of "limitations" with the objectives of increasing the usefulness of the ASTIA collection to the Department of Defense research and development program effort and effecting economies in ASTIA and in the military departments, consistent with effective security.

RECOMMENDATION NO. 16

That an ad hoc group be appointed to study security procedures for the release of classified documents to ASTIA users and recommend improvements which will reduce manhours and time required to process classified documents to certified users. The group should be composed of security representatives of the OSD and each of the military departments.





February 21, 1955  
NUMBER 5160.4

## Department of Defense Directive

SUBJECT Assignment of Responsibilities to Secretary of the Air Force for the Provision of Technical Information and Related Services Required by Department of Defense Activities

### I. GENERAL

Pursuant to the authority vested in me by the National Security Act of 1947, as amended, and as modified by Reorganization Plan No. 6 of 1953, and, subject to my authority, direction and control, the Secretary of the Air Force is hereby assigned responsibility for providing technical information and related services to the military departments and other agencies of the Department of Defense and Department of Defense contractors.

### II. PURPOSE

The purpose of this directive is to provide a central service within the Department of Defense for the efficient interchange of scientific and technical information consistent with effective security in order to promote progress and economy in research and development and to prevent unnecessary duplication of such services.

### III. FUNCTIONS

Subject to applicable Department of Defense policies, the Secretary of the Air Force will provide the following technical information and related services under this directive:

1. Receive, store and disseminate to agencies and contractors of the Department of Defense both classified and unclassified research and development information of a scientific and technical nature. Top Secret information, cryptographic material, Restricted Data, as defined in the Atomic Energy Act of 1954, and other classified defense information which may be excepted by policies or regulations of the military departments will be excluded from this function.

2. Provide auxiliary bibliographical and related services essential to the efficient control, utilization and dissemination of research and development information.

3. Carry out necessary research and development relevant to the performance of the functions outlined in this section.

4. Maintain liaison for the Department of Defense with the Department of Commerce and other governmental agencies which collect and disseminate scientific and technical information.

5. Within resources available to the Secretary of the Air Force for the provision of these services, classified and unclassified research and development information of a scientific and technical nature included in these services may be disseminated to other agencies of the Executive Branch of the Government in accordance with applicable provisions of law, provided that the originating agency of the material being released has authorized such action.

#### IV. OPERATION

The Secretary of Defense is responsible for providing policy direction, prescribing the scope and character of the services (including approval of manpower, fiscal and other administrative support requirements), and resolving any problems that may develop which affect two or more of the military departments or the Department of Defense as a whole. The Assistant Secretary of Defense (Research and Development) will advise and assist the Secretary of Defense in these matters and assure appropriate coordination with other Assistant Secretaries of Defense and Secretaries of the military departments.

The Secretary of the Air Force shall be responsible for the operation and administration of these services; he shall prescribe the organization and operational procedures required to perform the services; and he shall make recommendations to the Secretary of Defense as to the manpower, fiscal and other support required to carry out his responsibilities under this directive.

The Secretary of the Air Force shall provide for adequate collaboration and participation by the other two military departments in the operation of the technical information service activities performed under this directive. He may reassign his responsibilities under this directive within the command structure of the Department of the Air Force.

The Secretaries of the other two military departments shall provide that copies of pertinent classified and unclassified research and development information in the custody of their departments are made available to the Department of the Air Force for incorporation as a part of the technical information included in the services provided under this directive. They shall also designate properly qualified personnel at appropriate echelons of their departments to perform such operational liaison with the Department of the Air Force as may be required.

The Secretary of the Air Force, in collaboration with the Secretaries of the other two military departments, will develop security policies and procedures, consistent with applicable Executive Orders and Department of Defense directives, to ensure adequate security in connection with these services.

Feb 21, 55  
5160.4

The Secretary of the Air Force, in collaboration with the Secretaries of the other two military departments, will develop implementing instructions necessary to accomplish actions required by this directive and will submit them to the Secretary of Defense for approval prior to issuance.

V. RESCISSIONS

Secretary of Defense memorandum, dated 14 May 1951, subject "Armed Services Technical Information Agency," and attached Secretary of Defense directive on the same subject are canceled, and all other directives or memoranda or parts thereof, to the extent they are inconsistent with the provisions of this directive, are modified or rescinded, as appropriate.



Secretary of Defense



AIR FORCE REGULATION  
 NO. 205-43  
 ARMY REGULATIONS  
 NO. 380-60  
 OPNAV INSTRUCTION 5510.17A

DEPARTMENTS OF THE AIR FORCE,  
 THE ARMY, AND THE NAVY  
 WASHINGTON, 10 OCTOBER 1955

## SECURITY

### Armed Services Technical Information Agency

	Paragraph
Purpose and Scope.....	1
Policy .....	2
Concept and Function.....	3
Limitations .....	4
Dissemination of Classified Information by ASTIA.....	5
Dissemination of Unclassified Information by ASTIA.....	6
Participation by the Three Military Departments.....	7
Recovery of Classified Information from Department of Defense Contractors.....	8

**1. Purpose and Scope.** This regulation delineates interservice participation and prescribes security responsibilities for operating the Armed Services Technical Information Agency (hereinafter referred to as ASTIA), an agency re-established by the Secretary of the Air Force pursuant to Department of Defense Directive No. 5160.4, dated 21 February 1955. This regulation applies to all elements of the Army, Navy, and Air Force concerned.

#### 2. Policy:

a. Classified defense information in the possession of ASTIA shall be given a degree of security protection in every respect as high as that prescribed by AFR 205-1. Strict accountability records shall be maintained on all classified material received, reproduced and disseminated by ASTIA.

b. All persons employed by, or serving with, ASTIA shall be given a background investigation in accordance with the provisions of AFR 205-6, the results of which must be completely satisfactory.

c. Subject to the approval of the Commander, Air Research and Development Command, and consistent with the provisions of this regulation, the Commander of ASTIA shall develop and execute specific plans, procedures, and standards concerning the receipt, dissemination, segregation, handling, and storing of classified information within ASTIA and the guarding of buildings or areas to insure that such information is properly protected and is not subjected to compromise due to unauthorized distribution, presence of visitors, theft, unauthorized entry, disaster, or civil disturbance. Appropriate action

as necessary will be taken regarding unclassified information.

#### 3. Concept and Function:

a. ASTIA provides a central service within the Department of Defense for the efficient interchange of scientific and technical information *consistent with effective security* in order to promote progress and economy in research and development and to prevent unnecessary duplication of such services.

b. Subject to the provisions of this regulation, ASTIA shall receive, store and disseminate to agencies and contractors of the Department of Defense both classified and unclassified research and development information of a scientific and technical nature.

c. Within resources available for the provision of these services and subject to the provisions of this regulation, classified and unclassified research and development information of a scientific and technical nature included in these services may be disseminated to other agencies of the Executive Branch of the Government in accordance with applicable provisions of law, provided that the originating agency of the material being released has authorized such action.

#### 4. Limitations:

a. The release to ASTIA of information originated by one or more of the military departments or their contractors is the responsibility of the originating department or departments. Releases of classified information to ASTIA by any person outside the originating department or departments are not authorized.

\*This regulation supersedes AFR 205-43/AR 380-60/OPNAV INST 5510.17, 16 February 1953.



b. The following information is excluded from the provisions of this regulation and will not be released to ASTIA:

- (1) TOP SECRET defense information or material.
- (2) Cryptographic material or information.
- (3) Restricted Data as defined in the Atomic Energy Act of 1946 as amended by the Atomic Energy Act of 1954.
- (4) Registered documents or publications.
- (5) SECRET defense information pertaining to specifically designated projects determined by proper authority in a military department to be of an extremely sensitive nature.
- (6) Reports of a strategic or tactical nature.
- (7) Documents that reveal information concerning the existence of selected classified military projects or equipment whenever the unauthorized disclosure of this information might compromise operational or other war plans.
- (8) Documents which reveal the operational readiness of specific end items of classified material or equipment.
- (9) Administrative reports, regulations, orders, memoranda, and standard publications (such as manuals, handbooks, and technical orders).
- (10) Information furnished the United States by a foreign government whenever restrictions imposed by the foreign government do not permit the dissemination provided for by this regulation.

c. ASTIA shall not undertake the direct collection of foreign scientific or technical information. It may receive such foreign material from *United States* sources within its prescribed functions subject to such limitations as may be imposed by the contributing source.

d. ASTIA shall not disseminate information to foreign governments, their nationals, or representatives.

e. Requests by ASTIA to the military departments for documents or information on specific subjects not excluded under the provisions of this regulation, not previously furnished to ASTIA, shall be limited to specific requests made to ASTIA by users of the service.

## 5. Dissemination of Classified Information by ASTIA:

a. *General.* Classified information in the custody of ASTIA shall be disseminated only on a "need to know" basis and in accordance with the requirements of this regulation and within the limitations imposed by the contributing military activity.

b. *Dissemination to Activities of the Department of Defense.* ASTIA shall disseminate classified information to commanders and heads or chiefs of Department of Defense activities upon request when no limitations have been imposed on the release of the information. Information on which restrictions have been imposed shall be disseminated by ASTIA to such activities only in accordance with the restrictions.

c. *Dissemination to Department of Defense Contractors:*

- (1) Defense information classified *Confidential* may be released by ASTIA to appropriately cleared Department of Defense contractors within the continental United States when there is no restriction or limitation placed on such releases and the military department concerned with the contract approves the release in accordance with established procedures. Copies of documents transmitting the information shall be forwarded to the appropriate field activity of the military department concerned.
- (2) Defense information classified *Secret* may be released to appropriately cleared Department of Defense contractors within the continental United States only in the manner authorized by the military department concerned. All *Secret* information released, however, shall be transmitted via the appropriate field activity of the military department concerned.
- (3) All classified material furnished in accordance with (1) and (2) above shall contain, in addition to the Espionage Stamp, an appropriate notation indicating that the material is the property of the United States Government and is furnished on a loan basis and shall be returned to ASTIA when no longer required, or upon recall by ASTIA. (See paragraph 8 below.)

d. *Dissemination to Other Agencies of the Executive Branch of Government.* Upon receipt of a request for classified defense information

from agencies of the Executive Branch of Government other than activities of the Department of Defense, ASTIA shall forward the request to the originating agency of the material requested. Dissemination by ASTIA shall be made in accordance with instructions from the activity concerned.

#### **6. Dissemination of Unclassified Information by ASTIA:**

a. ASTIA may disseminate *unclassified* technical and scientific information to Department of Defense contractors within the continental United States without reference to the originator for use in connection with United States military projects or contracts and other Department of Defense work, provided the information is pertinent to the work being performed and no restriction on dissemination has been imposed by the originator.

b. ASTIA may disseminate *unclassified* technical and scientific information to activities of the Department of Defense without reference to the originator, upon request from such activities, provided no restriction has been imposed thereon by the originator.

c. *Unclassified* technical and scientific information may be disseminated to other agencies of the Executive Branch of Government without reference to the originator, provided no restriction has been imposed thereon by the originator.

#### **7. Participation by the Three Military Departments.** Commanders and heads or chiefs of all Army, Navy, Air Force, and Marine Corps activities concerned shall:

a. Issue instructions to provide ASTIA with scientific and technical reports pertaining to research and development as follows:

- (1) Subject to the limitation set forth in paragraph 4, at least five (5) legible copies of each technical or scientific report or similar document prepared individually or jointly by the Army, Navy, Air Force, or the Marine Corps, or by a contractor of one of the military departments, shall be forwarded as soon as practicable *direct* to the Armed Services Technical Information Agency.
- (2) Classified and unclassified documents prepared by contractors shall be forwarded to ASTIA as directed by the contracting activity concerned.
- (3) Before forwarding documents to

ASTIA, the contributing activity shall insure:

- (a) That the document bears a notation identifying the contributor.
  - (b) That any limitation on further dissemination imposed by a contractor or other person or agency having proprietary, ethical, patent, or similar rights is clearly reflected by an appropriate notation.
  - (c) That any limitation is clearly reflected by an appropriate notation regarding further reproduction or dissemination of the information which the military activity concerned determines must be imposed in the interest of security, or for proprietary rights of the Government, or for the need of minimizing the liability of the Government or its employees.
- (4) Before transmitting classified matter to ASTIA, the contributing military activity shall—in each instance—make a specific determination as to whether the material (title or assigned subject of a document, abstract, and full document, each considered separately) warrants protection as classified defense information: if it does not warrant such protection, the defense classification shall be canceled in accordance with applicable departmental regulations. The classification of the title or assigned subject of a document shall be indicated. If the title or assigned subject is unclassified, this fact shall be indicated. Material which cannot be declassified will be assigned, or downgraded to, the least restrictive defense classification consistent with proper safeguarding.
  - (5) All notices of reclassification actions affecting technical reports will be reported to ASTIA by the releasing military activity.
  - (6) Appropriate activities of the military departments shall notify ASTIA promptly when a contract which involves research and development information of a scientific and technical nature is awarded, terminated, or a change is made in the facility security clearance pertinent to such contractor which may affect the serv-



ices rendered by ASTIA. Similarly, ASTIA shall be notified when the "need to know" changes or no longer exists.

b. Military commanders, heads or chiefs of military activities shall request from ASTIA *only* such classified material for which a clear "need to know" exists. (In accordance with the principle of instructions promulgated by the Secretary of Defense, a request for classified material *will not be made* by any individual unless he has a clear, official requirement for knowledge or possession of such material.)

c. Responsible individuals concerned with contracts shall certify, when appropriate, that possession of classified information requested by contractors is on a "need to know" basis necessary in performance of specific contracts. In each case, the responsible individual will take this action in accordance with the regulations applicable to his department or agency.

d. Activities which monitor *Confidential* defense information flowing to their contractors or which act as releasing authority for *Secret* information being transmitted to their contractors

(pursuant to paragraph 5c above) shall determine whether the contractor has a "need to know" for the classified information involved. Whenever it is determined that the contractor has no need for the *Confidential* information in question, ASTIA shall be so notified and requested to initiate the recovery of the material. In the case of *Secret* information, it shall be returned to ASTIA.

**8. Recovery of Classified Information from Department of Defense Contractors.** Upon receiving information from the contracting military activity that a contractor no longer has need for classified information which has been supplied, ASTIA shall take appropriate action to initiate the recovery of classified documents furnished by ASTIA. As soon as practicable after the return of the material, ASTIA shall so notify the contracting military activity. In the event a contractor fails to return such material within a reasonable period, ASTIA shall provide the activity with a consolidated list of all unreturned classified information furnished the contractor by ASTIA. The contracting military activity shall take action to insure that the material is recovered and returned to ASTIA.

BY ORDER OF THE SECRETARIES OF THE AIR FORCE, THE ARMY, AND THE NAVY:

OFFICIAL:

E. E. TORO  
Colonel, USAF  
Air Adjutant General

N. F. TWINING  
Chief of Staff, United States Air Force

OFFICIAL:

JOHN A. KLEIN  
Major General, United States Army  
The Adjutant General

MAXWELL D. TAYLOR  
General, United States Army  
Chief of Staff

OFFICIAL:

G. L. RUSSELL  
Rear Admiral, United States Navy  
Deputy Chief of Naval Operations  
(Administration)

ARLEIGH BURKE  
Chief of Naval Operations

DISTRIBUTION:

Air Force:

B

Active Army: D

To be distributed on a need-to-know basis to Department of the Army Agencies, Continental Army Command, Army Headquarters, and Headquarters of Major Oversea Commands.

NG: State AG (3)

USAR: None

CHANGE

AFR 205-43A  
C 1, AR 380-60  
OPNAVINST 5510.17A, CH 1  
4, 6

AIR FORCE REGULATION }  
NO. 205-43A  
C 1, ARMY REGULATIONS }  
NO. 380-60  
OPNAVINST 5510.17A, CH 1 }

DEPARTMENTS OF THE AIR FORCE,  
THE ARMY, AND THE NAVY  
WASHINGTON, 4 JUNE 1956

## SECURITY

### Armed Services Technical Information Agency

AFR 205-43/AR 380-60/OPNAVINST 5510.17A, 10 October 1955, are changed as follows:

\* \* \* \*

#### 4. Limitations:

\* \* \* \*

d. ASTIA *shall not* disseminate information to foreign governments, their nationals, or representatives, except as provided in paragraph 6d.

#### 6. Dissemination of Unclassified Information by ASTIA:

\* \* \* \*

d. Subject to the instructions listed below, ASTIA will distribute lists of titles of *unclassified* reports in its possession to foreign governments of the North Atlantic Treaty Organization (NATO) upon their request. Also, subject to the same instructions, ASTIA will furnish such foreign governments with any document included on the lists if they request it.

- (1) The lists of reports must not include any document which (a) was furnished to the United States by a foreign government, (b) contains proprietary information, or (c) contains limitations on dissemination that were imposed by the originating department.

- (2) Before a foreign government is given any report, such government must have declared that the information it will receive will be used only to promote the progress of research and development in support of NATO defense objectives. Responsibility for obtaining such assurances rests with the Chief of Staff, USAF.
- (3) The Chief of Staff, USAF (Director of Intelligence), in coordination with the Assistant Chief of Staff, Intelligence (Department of the Army), and the Director of Naval Intelligence, will notify ASTIA of the person who is authorized to request lists of titles or to request individual documents for his government.
- (4) Reports will not be announced to foreign governments by ASTIA until at least 60 days after ASTIA has announced them to United States activities. (Note: During the 60-day period, the military departments will have an opportunity to screen the reports.)

\* \* \* \*



BY ORDER OF THE SECRETARIES OF THE AIR FORCE, THE ARMY, AND THE NAVY:

OFFICIAL:

E. E. TORO  
*Colonel, USAF*  
*Air Adjutant General*

N. F. TWINING  
*Chief of Staff, United States Air Force*

OFFICIAL:

JOHN A. KLEIN  
*Major General, United States Army*  
*The Adjutant General*

MAXWELL D. TAYLOR  
*General, United States Army*  
*Chief of Staff*

OFFICIAL:

G. L. RUSSELL  
*Vice Admiral, United States Navy*  
*Deputy Chief of Naval Operations*  
*(Administration)*

ARLEIGH BURKE  
*Chief of Naval Operations*

DISTRIBUTION:

*Air Force:*

B

*Active Army: D*

To be distributed on a need-to-know basis to Department of the Army agencies, Continental Army Command, Army headquarters, and headquarters of major oversea commands.

NG: State AG (3)

USAR: None

SUGGESTED CHANGE TO  
DOD DIRECTIVE NO. 5160.4  
DATED FEBRUARY 21, 1955

In order to implement Recommendation No. 1 of this report, it is suggested that the following change be made to DOD Directive No. 5160.4, dated February 21, 1955:

1. Add new Section V to read as follows:

"V. ADVISORY COUNCIL

An Armed Services Technical Information Advisory Council is hereby established within the Department of Defense, consisting of a research and development representative from the Office of the Secretary of Defense and each of the three military departments, to be designated by the Assistant Secretary of Defense (Research and Engineering) and the three Secretaries of the military departments, respectively.

The purpose of the Advisory Council shall be to advise the Secretary of the Air Force or his designee at the Headquarters United States Air Force level on policies, plans, programs and relationships relative to the provision and operation of a central service within the Department of Defense for the efficient interchange of scientific and technical information.

The Air Force representative shall serve as chairman of the Advisory Council."

2. Renumber old Section V. Rescissions as Section VI.

## THE FORECAST OF ASTIA ACTIVITY

The question frequently asked is: What should be or what will be the future level of ASTIA activity? The answer is obviously desirable in planning the operation. It is very difficult to answer this adequately, and many have, in honesty, refused to attempt it for two reasons:

(1) ASTIA is a new and unique operation of its type and size in history, and no experience is available as to its growth and equilibrium; and

(2) The view that almost any conceivable growth pattern in terms of cost would be fully justified by the benefits to the Defense Research and Development program if the operation is efficient.

The following analysis and its necessary assumptions will illustrate the problem.

### ANALYSIS OF POTENTIAL ASTIA DOCUMENT COLLECTION

The ultimate source of ASTIA documents is the Research and Development activity of the Department of Defense. This activity in terms of Annual Expenditure is plotted in Enclosure 1. In gross, information generated is proportional to this expenditure, although different types of research and development have different information yields per dollar expended. To make expenditures comparable over the Fiscal Years 1944-1956, the gross expenditure must be reduced in latter years both by amounts added to R&D in recent accounting reforms which were not formerly included and, also, by increased costs for R&D completed

from a special R&D Index Base (1947-1949). These adjustments are shown in Enclosure 1.

The significant amount of information, however, is not for a single fiscal year but for the accumulation over all fiscal years. The accumulated adjusted R&D Expenditure in the Department of Defense since FY 1954 (at the end of each fiscal year) is shown in Enclosure 2. This amount never decreases. It is obvious that the accumulated information at ASTIA is not truly represented by the value of the dollars once expended as the information may lose value with time.

The decrease in value of information available at ASTIA for the Department of Defense depends on such factors as:

1. The rate of non-aggressive communication and incorporation of new information into the generally known state of the art;
2. Security classification and declassification;
3. General advance of the art which renders former information less significant;
4. The great economic and strategic advantages of prompt application; and
5. The non-decreasing value of exactly performed and documented scientific experiments.

It is necessary to estimate this depreciation of information value. For this analysis, Defense R&D information in gross is assumed to have a half-life of three years (decay of 20.6% a year) for the first ten years and remains at 10% of its value from the 10th to 20th year. Its value thereafter is an academic question at present.



Applying this rule to accumulated Defense R&D expenditures gives a plot of the Expenditure Dollar equivalent value of ASTIA holdings at the end of each fiscal year in Enclosure 2. In general, changes in this amount will lag the effect of changes in Annual Expenditure, and it will always be less than total accumulated expenditure. If the annual rate of expenditure had been equal to that of the fiscal year under consideration for twenty years previously, the value of ASTIA holdings would be 5.467 times the annual rate of expenditure. The same amount also gives the value of ASTIA holdings twenty years hence if that annual rate were to be sustained. These values of ASTIA holdings in twenty years are plotted for each fiscal year in Enclosure 2.

From this data, it may be concluded that:

1. ASTIA holdings have always had a value less than the equivalent of the sustained annual R&D expenditure because the latter has been increasing.

2. The annual rate of R&D expenditure shows a tendency to stabilize at about \$900,000,000. If so, this will represent an eventual value of ASTIA holdings of about five billion equivalent expended dollars or 30% larger than the current value.

3. Any change in the expenditure level in R&D has its affect on ASTIA holding value for a long time. However, half of the affect of the change will die out in three to four years.

#### ANALYSIS OF THE LEVEL OF ASTIA ACTIVITY ON REQUESTS FOR SERVICES

The previously described potential value of ASTIA document holdings in terms of expenditure dollar equivalent value would set an

upper bound to ASTIA operations. However, it does not forecast what the level of activity of the operation will be when that potential is realized.

From 1951 to 1957, the annual traffic of requests made to ASTIA for documents has increased nine times (Enclosure 3). Over the same period, the potential has only increased 1.7 times (Enclosure 2). This is to be expected as the organization is new and it will take some time for traffic to reach equilibrium. The question now is: how near is the activity to a stable expansion trend, and what will be the limits of that expansion? The uncertainty in this matter is described below.

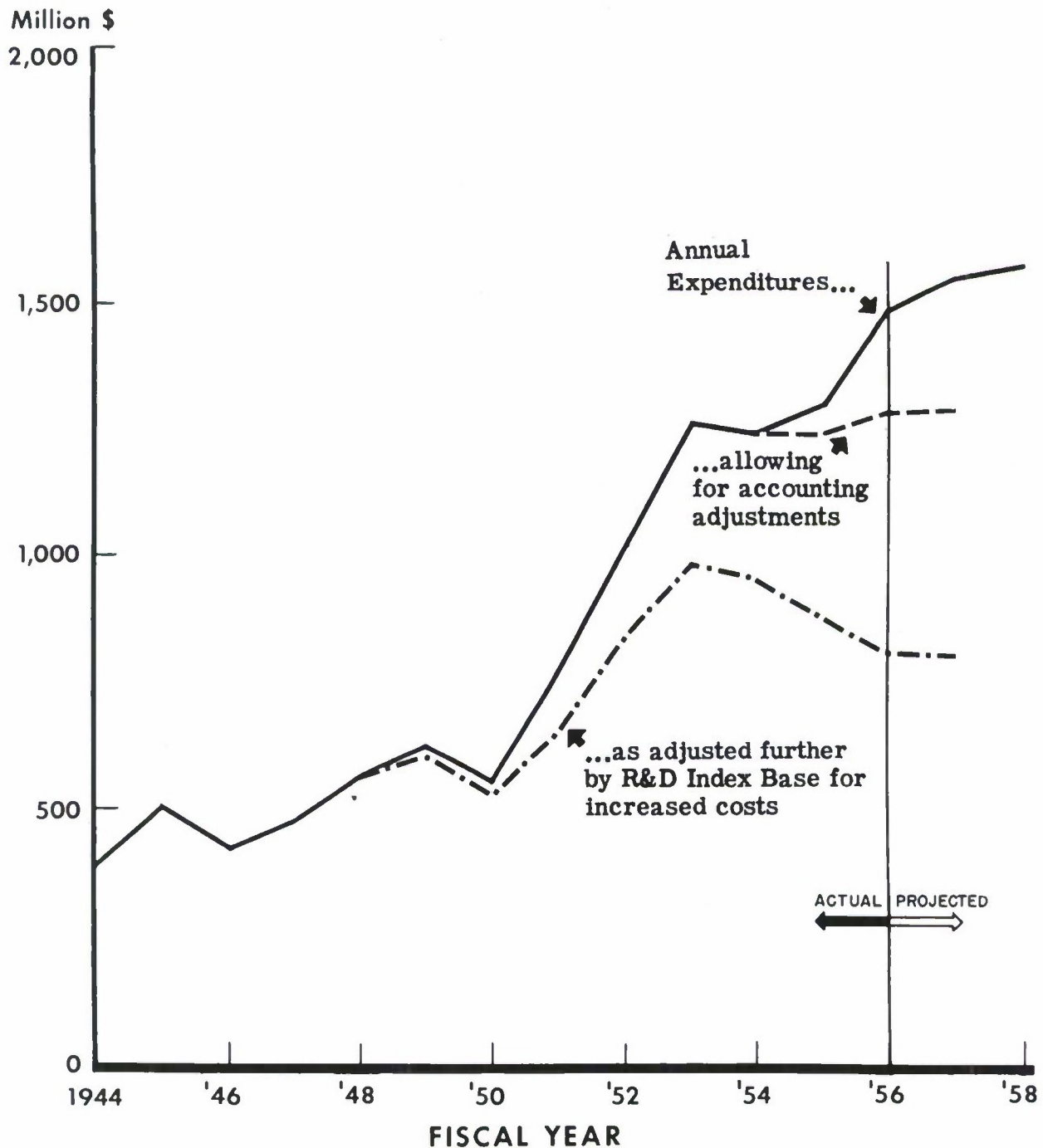
If ASTIA is tending to approach a level of activity, it might be assumed that the approach would be such that the same fraction of remaining potential is taken up each successive year. This is in practice a "normal" expansion. Levels of activity for any set of three year periods can be interpreted as steps in one such expansion, the goal of the expansion computed and the rate of progress to the goal determined. Assurance of validity is given when two sets of three-year periods show the same goal and same rate of progress. In the case of ASTIA, recent three-year periods would be used to avoid possible affect of early initial slowness in starting.

Enclosure 3 shows two "normal" expansions for the years 1954-1955-1956 and 1955-1956-1957. The respective forecast goals are 575,000 documents per year and 383,000 documents per year respectively. The former shows a slower rate of progress. The difference in these "normal" expansions shows that the ASTIA traffic is not yet free of anomalies in its expansion pattern. A year ago, an activity

of 500,000 document requests in 1960 might have been expected. Today, there is indication that equilibrium traffic may shortly be reached at under 400,000 document requests per year. The inconsistency casts doubt on both estimates.

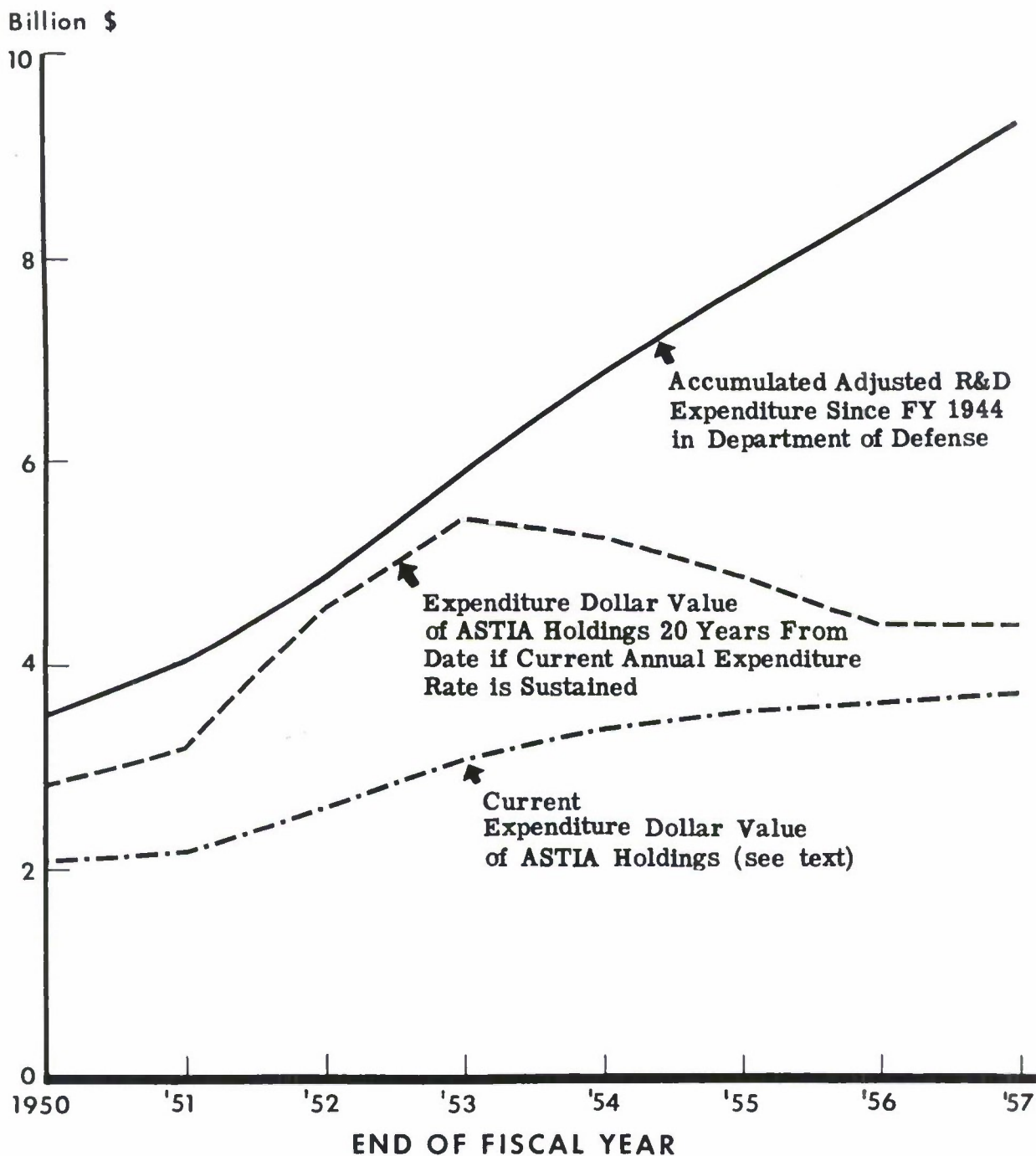
The survey group estimates that ASTIA activity will stabilize at between 400,000 and 500,000 document requests per year. This estimate assumes the effect of managerial changes recommended in this study as well as a probably 30% increase in the potential value of ASTIA documentary holdings.

# DEFENSE RESEARCH AND DEVELOPMENT ANNUAL EXPENDITURE



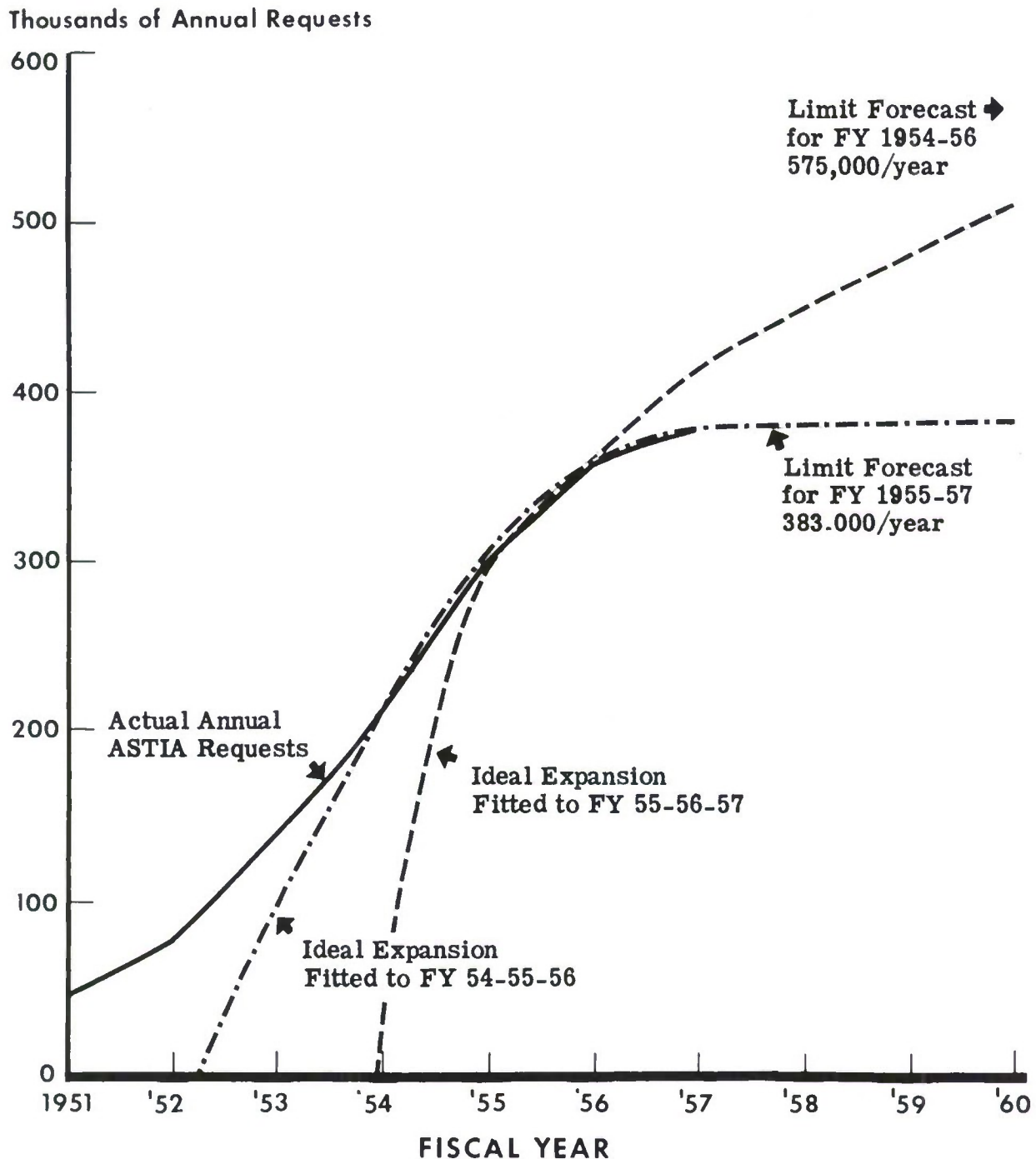


## POTENTIAL VALUE OF ASTIA HOLDINGS



# FORECAST OF REQUESTS FOR ASTIA SERVICE

## MAXIMUM AND MINIMUM POTENTIAL



## PROPOSED DOD DIRECTIVE

SUBJECT: Cataloging and Abstracting Documents Containing Research Development Information of a Scientific and Technical Nature

### I. PURPOSE

The purpose of this directive is to establish the objectives and policy for cataloging and abstracting documents containing Department of Defense research and development information of a scientific and technical nature. This directive also assigns responsibilities for carrying out the cataloging and abstracting functions.

### II. OBJECTIVES

A. To assure that research and development documents containing technical and scientific information are cataloged and abstracted so as to facilitate bibliographical control, reference service and retrieval.

B. To assure the maximum degree of standardization and uniformity in cataloging and abstracting formats.

### III. POLICY

A. Each of the military departments will provide catalog and abstract information with research and development documents of a technical and scientific nature which it originates. Also each military department will have its research and development contractors provide to the maximum extent feasible similar catalog and abstract information

with the research and development documents of a scientific and technical nature which they originate.

B. Cataloging and abstracting as near the source and time of document writing as possible will reduce need for repetitive cataloging and abstracting, will expedite bibliographical control and reference service and will effect economies in time and manhours.

#### IV. RESPONSIBILITIES

A. The Secretary of the Air Force, in coordination with the Secretaries of the other two military departments, will be responsible for prescribing the standards and format for cataloging and abstracting for the guidance of all Department of Defense agencies and Department of Defense research and development contractors who originate research and development documents of a scientific and technical nature.

B. Each of the Secretaries of the three military departments will require such documents to contain catalog and abstract information.

C. The Secretaries of the three military departments may reassign their responsibilities under this directive to the organizational level each considers appropriate.

#### V. EFFECTIVE DATE

This directive will be implemented no later than December 31, 1957.



# STATISTICS ON ASTIA PERSONNEL

A. Located in Dayton, Ohio (as of March 21, 1957)

Organizational Unit	No. of Pers.	Aver. Age	Aver. Length of ASTIA Service (Yrs)	Grade and Salary				
				Top	Low	Average		
Office of Commander	5	40	3	GS-11	\$6390	GS-4	\$3670	\$4519
Administration	10	39	6	GS-15	11880	GS-4	3670	6435
Operations	4	42	10	GS-15	11880	GS-5	3940	7794
Inspector General:								
Administrative	6	32	3	GS-12	7570	GS-3	3515	5620
Guard Service	14	40	2	GS-6	4890	GS-3	3175	3919
Field Service	11	41	3	GS-14	10535	GS-5	4075	6044
Document Service Center:								
Offices of the Chiefs,								
DSC, Div; & Br. Off.	14	40	6	GS-14	10320	GS-3	3175	6189
Supply	5	30	6	GS-7	4795	GS-3	3175	4089
Acquisition Section	7	39	8	GS-9	5710	GS-3	3175	3985
Storage Section	14	37	3	GS-7	4805	GS-3	3600	4046
Cataloging Section	28	42	7	GS-11	6605	GS-3	3430	4488
Control Section	16	41	4	GS-7	4075	GS-3	3345	3713
Reference Section	14	49	8	GS-9	5575	GS-4	3755	4209
Request Section	19	38	8	GS-11	6820	GS-3	3175	4607
Ship. & Rec. Section	25	42	4	GS-6	4485	GS-2	2960	3742
Photography Section	21	38	5	WB-9	6822	GS-2	2960	4249
Photo Repro. Section	25	35	3	GS-7	5335	GS-2	2960	3804
Copy Prep. Section	24	37	5	GS-9	6115	GS-2	2960	3867
Duplicating Section	24	39	2	WB-8	7176	WB-2	3515	4737
Repro. Control Section	6	34	3	GS-5	4210	GS-3	3175	3515
Requirements Section	6	36	4	GS-5	3670	GS-3	3175	3326
Total	298							4343
Classified	242							4617
Wage Board	56							

F-1

Appendix F

B. Located in ASTIA Reference Center, Library of Congress (as of March 21, 1957)

Organizational Unit	No. of Pers.	Aver. Age	Aver. Length of ASTIA Service (Yrs.)	Grade and Salary		
				Top	Low	Average
Administrative	15	40	4	GS-14 \$10320	GS-2 \$3470	\$5060
Reference	23	37	3.5	GS-12 7570	GS-3 3175	4495
Cataloging	33	35	4	GS-12 8430	GS-3 3175	4424
Abstracting	20	33	3	GS-12 8000	GS-2 2960	5480
Publication: (Classified)	36	30	2.5	GS-9 5575	GS-2 2960	3528
(Wage Board)	3	48	4.5	WB-11 4700	WB-9 4265	4410
Service	36	28.5	2.6	GS-9 5575	GS-2 2960	3430
Total	166					
Classified	163					4205
Wage Board	3					4410

PRICE LIST AND PUBLIC LAW 716 -  
81ST CONGRESS, OFFICE OF TECHNICAL  
SERVICES, DEPARTMENT OF COMMERCE

A. Price List - The following is an example of the prices charged by the Office of Technical Services of the Department of Commerce for technical documents furnished to industry, business and the general public:

PRICING SCALE

- A. Photostat: \$1.80 for each 10 pages or fraction thereof.  
 B. Enlargement Prints: \$3.30 for each 10 pages or fraction thereof.  
 C. Microfilm: \$1.80 for each 10 pages or fraction thereof.  
 Maximum price: \$11.10 for 250 pages or more.

<u>Pages or frames</u>	<u>Photostat</u>	<u>Enl. Pr.</u>	<u>Microfilm</u>
1-10	\$ 1.80	\$ 3.30	\$ 1.80
11-20	3.30	4.80	2.40
21-30	4.80	6.30	2.70
31-40	6.30	7.80	3.00
41-50	7.80	9.30	3.30
51-60	9.30	10.80	3.60
61-70	10.80	12.30	3.90
71-80	12.30	13.80	4.50
81-90	13.80	15.30	4.80
91-100	15.30	16.80	5.40
101-110	16.80	18.30	5.70
111-120	18.30	19.80	6.00
121-130	19.80	21.30	6.30
131-140	21.30	22.80	6.90
141-150	22.80	24.30	7.20
151-160	24.30	25.80	7.50
161-170	25.80	27.30	7.80
171-180	27.30	28.80	8.10
181-190	28.80	30.30	8.40
191-200	30.30	31.80	8.70
201-210	31.80	33.30	9.30
211-220	33.30	34.80	9.60
221-230	34.80	36.30	9.90
231-240	36.30	37.80	10.20
241-250	37.80	39.30	11.10



B. Public Law 716 - 81st Congress, which authorizes the Department of Commerce to charge for technical documents furnished to industry, business and the general public, when requested by them, is quoted below. The law also authorizes the Department of Commerce to use monies collected from industry, business and the general public for technical documents to finance the operations of the departmental activity providing such services.

(PUBLIC LAW 776 - 81ST CONGRESS)

(Chapter 936 - 2d Session)

(S. 868)

AN ACT

To provide for the dissemination of technological, scientific, and engineering information to American business and industry, and for other purposes.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, That the purpose of this Act is to make the results of technological research and development more readily available to industry and business, and to the general public, by clarifying and defining the functions and responsibilities of the Department of Commerce as a central clearinghouse for technical information which is useful to American industry and business.

CLEARINGHOUSE FOR TECHNICAL INFORMATION

Sec. 2. The Secretary of Commerce (hereinafter referred to as the "Secretary") is hereby directed to establish and maintain within the Department of Commerce a clearinghouse for the collection and dissemination of scientific, technical, and engineering information, and to this end to take such steps as he may deem necessary and desirable --

(a) To search for, collect, classify, coordinate, integrate, record, and catalog such information from whatever sources, foreign and domestic, that may be available;

(b) To make such information available to industry and business, to State and local governments, to other agencies of the Federal Government, and to the general public, through the preparation of abstracts, digests, translations, bibliographies, indexes, and microfilm and other reproductions, for distribution either directly or by utilization of business, trade, technical, and scientific publications and services;

(c) To effect, within the limits of his authority as now or hereafter defined by law, and with the consent of competent authority, the removal of restrictions on the dissemination of scientific and



technical data in cases where consideration of national security permit the release of such data for the benefit of industry and business.

#### RULES, REGULATIONS, FEES

Sec. 3. The Secretary is authorized to make, amend, and rescind such orders, rules, and regulations as he may deem necessary to carry out the provisions of this Act, and to establish, from time to time, a schedule or schedules of reasonable fees or charges for services performed or for documents or other publications furnished under this Act: PROVIDED, That all moneys hereafter received by the Secretary in payment for publications under this Act shall be deposited in a special account in the Treasury, such account to be available, subject to authorization in any appropriation Act, for reimbursing any appropriation then current and chargeable for the cost of furnishing copies or reproductions as herein authorized, and for making refunds to organizations and individuals when entitled thereto: AND PROVIDED FURTHER, That an appropriation reimbursed by this special account shall, notwithstanding any other provision of law, be available for the purposes of the original appropriation.

It is the policy of this Act, to the fullest extent feasible and consistent with the objectives of this Act, that each of the services and functions provided herein shall be self-sustaining or self-liquidating and that the general public shall not bear the cost of publications and other services which are for the special use and benefit of private groups and individuals; but nothing herein shall be construed to require the levying of fees or charges for services performed or publications furnished to any agency or instrumentality of the Federal Government, or for publications which are distributed pursuant to reciprocal arrangements for the exchange of information or which are otherwise issued primarily for the general benefit of the public.

#### REFERENCE OF DATA TO ARMED SERVICES

Sec. 4. The Secretary is directed to refer to the armed services all scientific or technical information, coming to his attention, which he deems to have an immediate or potential practical military value or significance, and to refer to the heads of other Government agencies such scientific or technical information as relates to activities within the primary responsibility of such agencies.

#### GENERAL STANDARDS AND LIMITATIONS

Sec. 5. Notwithstanding any other provision of this Act, the Secretary shall respect and preserve the security classification of any scientific or technical information, data, patents, inventions, or discoveries in, or coming into, the possession or control of the Department of Commerce, the classified status of which the President or his designee or designees certify as being essential in the interest of national defense, and nothing in this Act shall be construed

as modifying or limiting any other statute relating to the classification of information for reasons of national defense or security.

#### UTILIZATION OF EXISTING FACILITIES

Sec. 6. (a) The Secretary may utilize any personnel, facilities, bureaus, agencies, boards, administrations, offices, or other instrumentalities of the Department of Commerce which he may require to carry out the purposes of this Act.

(b) The Secretary is hereby authorized to call upon other departments and independent establishments and agencies of the Government to provide, with their consent, such available services, facilities, or other cooperation as he shall deem necessary or helpful in carrying out the provisions of this Act, and he is directed to utilize existing facilities to the full extent deemed feasible.

#### RELATION TO OTHER ACTS

Sec. 7. Nothing herein shall be construed to repeal or amend any other legislation pertaining to the Department of Commerce or its component offices or bureaus.

Approved September 9, 1950.